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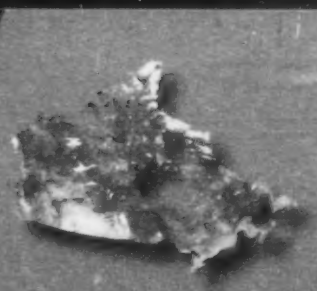

The Woodlot Owners of Prince Edward Island: a Survey of Their Forest Use, Management, and Values

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Natural Resources Canada
Ressources naturelles Canada
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Abstract

Forests and woodland are integral to the natural scenery of Prince Edward Island (PEI). Some 16 000 private woodlot owners control 87% of PEI's forests, and have a major impact on the state of the forest resource. This report presents the results of a survey of PEI private woodlot owners that was conducted to elicit their beliefs, motivations, and attitudes, and to understand their role in forest management decisions. The survey was a collaborative effort of the PEI Department of Agriculture and Forestry, the University of New Brunswick, and Natural Resources Canada - Canadian Forest Service. It was sent to a sample of woodlot owners stratified according to three sizes of private woodlots: small (1-10 acres), medium (11-50 acres), and large (51 acres or more).

Resumé

Les forêts et les terrains boisés sont intégrales au paysage naturel de l'Île-du-Prince-Édouard (Î.-P.-É.). Quelques 16 000 propriétaires de terrains boisés contrôlent 87 % des forêts de l'Île, et ont un impact significatif sur l'état de la ressource forestière. Ce rapport présente les résultats d'un sondage des propriétaires de terrains boisés de l'Île qui a été mené afin d'éliciter leurs croyances, leurs motivations et leurs attitudes, ainsi que de comprendre leur rôle dans la prise de décisions concernant la gestion forestière. Le sondage était un effort collaboratif du ministère de l'Agriculture et des forêts de l'Île, de l'Université du Nouveau-Brunswick et de Ressources naturelles Canada - Service canadien des forêts. Il a été envoyé à un échantillon de propriétaires de terrains boisés stratifié selon la taille de leurs terrains boisés : petit (1 à 10 acres), moyen (11 à 50 acres) et grand (51 acres et plus).

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EXECUTIVE SUMMARY

Forests and woodland are integral parts of the natural scenery of Prince Edward Island (PEI), even though these forests have been and still are intensely remodelled. Eighty-seven percent of PEI's forests belong to some 16 600 private woodlot owners, and these individuals have a major impact on the state of this resource. We know little about PEI woodlot owners, even though studies were conducted in the mid 1980s. To overcome this, the PEI Department of Agriculture and Forestry, the University of New Brunswick, and Natural Resources Canada - Canadian Forest Service collaborated on a survey of woodlot owners. The goal was to elicit beliefs, motivations, and attitudes of PEI woodlot owners, and understand their role in forest management decisions. The survey was sent to a sample of woodlot owners that had been stratified to assess three sizes of private woodlots: small (1–10 acres), medium (11–50 acres), and large (51 acres or more). We completed two survey mail outs and a postcard follow-up, and received a 52% response rate. The main results of the survey are presented below.

In this analysis, we found it appropriate to occasionally report on owners of "smaller" or "larger" woodlots. For example, when we say that owners of smaller woodlots are more likely to do an activity, this means that this activity is more popular among owners of small woodlots than among owners of medium woodlots, and more popular among owners of medium woodlots than among owners of large woodlots.

Demographic profile of PEI woodlot owners

Most respondents were males (77%) aged 45 to 64 (51%). Many woodlot owners work full time (43%) and earn a family income of $20 000 to $60 000 (43%). One out of four respondents did not complete high school, but most have higher education, some college, or a technical school diploma or university degree.

Characteristics of woodlot ownership

Many respondents (44%) live on their woodlots, but 18% live outside PEI. Non-residents are more likely to own small woodlots. A third of the respondents own a farm beside their woodlot, but the percentage increases with the size of the woodlot owned, with 49% of owners of large woodlots owning a farm.

The woodlots of most owners (61%) comprise a single parcel of land, but this proportion is much higher among owners of small woodlots (78%) than among owners of large woodlots (30%). For owners of large woodlots, 54% own two to five parcels. Woodlots are owned by individuals (46%), jointly (46%), or in various partnerships (5%).

Many woodlot owners have owned their land for less than 15 years (40%), but 31% have owned it for 15 to 30 years. Most owners (65%) purchased part of their woodlot, and about a third inherited some of their lands. Owners obtained their woodlots from family (54%) and other individuals (45%). Very few woodlot owners (15%) sell or give away woodland, and when they do so, it goes to family (30%), other individuals (43%), and logging contractors (25%).

Most owners (59%) do not have a management plan for their woodlot and are not interested in getting one. However, one out of four owners is interested in developing such a plan. Owners of larger woodlots are more likely to have a management plan for their woodlot.

Reasons for owning a woodlot

Owners were asked to provide the main reason they own a woodlot. The most popular reasons are: it is part of their home or farm (29%), they have inherited it (13%), it provides firewood or lumber (14%), and personal use or enjoyment (9%). Owners of medium and large woodlots are more likely to cite timber production as their main motive, but owners of small woodlots are more likely to cite vacation property and recreation as their main motivation.

Motives related to legacy (given as heritage for future generations) are rated as important by most owners. Motives related to environmental considerations (wildlife enjoyment, ecosystem protection, water quality, green space) are also important for most owners. However, timber harvesting is rated as not important for most owners in all sizes of ownership, even though owners of large woodlots give it more importance. Most owners also rate economic motives (retirement funds, investment, making a living, a supplement to income) as not important, even if owners of large woodlots give more importance to these reasons.

Frequency of timber harvesting

The frequency of timber harvesting varies greatly according to the size of woodlot owned. Many small woodlot owners (49%) have never harvested trees on their woodlot; this percentage drops to 23% for owners of medium woodlots, and to 10% for owners of large woodlots. Owners who harvest yearly follow the opposite trend, with 13% among owners of small woodlots, 29% for medium woodlots, and 37% for large woodlots.

Many woodlot owners have not been involved in forest harvesting over the last 10 years, and most of them own small or medium woodlots. This mitigates the impact this behavior could have on timber available for harvesting. In fact, area estimates provided by respondents show that owners of small woodlots control 2% of the total land base belonging to our sample (66 800 acres), owners of medium woodlots control 16%, and owners of large woodlot control the remaining 82%. Although 39% of owners have not harvested timber in the last 10 years, some harvesting has taken place on 84% of the land base owned by our respondents, and only 6% of the land base belongs to owners who have not harvested and who have no intention of doing so in the future.

Reasons to harvest

Most owners who harvested timber over the last 10 years rate stand characteristics (trees were mature, removed damaged trees, improved remaining trees) as important in their decision to harvest. Owners of larger woodlots value the need for wood for personal use, whereas owners of small woodlots value improvement of scenic quality or recreation opportunities.

Timber products harvested

The wood harvested by owners in the last 10 years was put to various uses. We asked these owners if the timber products were for personal use or if they were sold. Firewood (68%), softwood sawlogs (32%), poles and pilings (14%), and hardwood sawlogs (13%) are the products that many owners keep for their own use. Softwood sawlogs (34%), pulpwood (30%), firewood (14%), and hardwood sawlogs (11%) are the most popular products sold. Overall, owners of medium woodlots are more likely to use timber that they harvest, whereas owners of large woodlots are more likely to put it on the market.

People involved in timber harvesting and satisfaction regarding contractors

Most of the woodlot owners who have harvested timber from their land over the last 10 years have done so with their own labor or with the help of family; only one out of four has hired an independent contractor. Owners of smaller woodlots are more likely to do the harvesting themselves and with the help of family members, whereas owners of larger woodlots are more likely to hire a contractor. In fact, owners of large woodlots are four times more likely to have experience with logging contractors than owners of small woodlots (61% vs. 16%). Owners of larger woodlots also express greater satisfaction with the job done by contractors than owners of small woodlots.

Reasons not to harvest

Most owners who have not harvested in the last 10 years have no intention of harvesting in the future. The percentage of owners expressing this view decreases as the size of ownership increases, ranging from 61% among owners of small woodlots to 29% among owners of large woodlots. Among owners who have not harvested in the last 10 years but might do so in the future, the most important reasons that prevented them from engaging in this activity are concerns about damaging the remaining trees (42%), lack of time (40%), and absence of financial need (37%).

Clearcutting as a harvesting method

Forty-five percent of owners of small woodlots judge clearcutting as an unacceptable means of harvesting timber on private land, but only 34% of owners of large woodlots do so. Owners of large woodlots are also more likely to agree that clearcutting should be allowed where suitable, whereas owners of small woodlots are more likely to agree that clearcutting should not be used anywhere. This reflects the trend observed in use of clearcut by woodlot owners who have harvested timber in the last 10 years: owners of larger woodlots clearcut more often than owners of smaller woodlots.

Harvesting of non-timber forest products

Non-timber forest products are marginally used (10% and less) by woodlot owners, except for berries (23%) and boughs and brush (18%) collected for personal use.

Forest management

Removing low quality trees (38%), selection cutting (25%), and planting (21%) are the forest management activities that have been the most popular among woodlot owners in the past 5 years. Similar percentages of woodlot owners are also interested in forest management in the next 5 years. Overall, owners of large woodlots are engaged and plan to be engaged in more forest management activities.

Advice on forest management

There is an important variation in the number of owners who received advice according to the size of their woodlots. Most owners of large woodlots (57%) receive advice on management of their woodlots but most owners of medium (62%) and small woodlots (74%) do not. Among those who receive advice on managing their woodlot, most, especially owners of larger woodlots, get advice from PEI Forest Service technicians. Logging contractors provide more advice to owners of medium and large woodlots, and neighbors and other landowners provide more advice to owners of small woodlots.

Learning tools

Consulting with foresters or other natural resources professionals by means of pamphlets or newsletters is rated as the most useful tool for learning about forest management. Home courses, talking with contractors, and membership in landowner organizations are rated as the least useful.

Awareness of woodlot management programs and woodlot owners' organizations

There is a low rate of participation in woodlot owners' associations, although 39% of respondents would consider joining such an organization. There is also a low rate of awareness about woodlot management programs (24%). Despite that, 50% of respondents are satisfied with government efforts to support and encourage better woodlot management.

Forest sustainability

The survey uncovered a concern about the sustainability of PEI forests. Regardless of the size of ownership, most respondents are concerned that too much wood is being cut on PEI. Most also disagree that there is enough timber in PEI for all users. Finally, 48% of respondents agree that PEI will have little wood left in 10 to 20 years.

Conservation

Woodlot owners share common views on conservation issues. Most (60%) agree that greater efforts are needed to protect old-growth forests. Most (63%) also agree that government should provide incentives to private woodlot owners for protected areas, and 51% are concerned about the lack of financial incentives for preservation.

Wildlife issues

A few woodlot owners (17%) do not consider wildlife in managing their woodlots. There is high acceptance (71% to 75%) for practices such as leaving clumps of trees for wildlife or using selection cutting to preserve wildlife habitat.

Owners' rights vs. regulation

Overall, woodlot owners have mixed opinions about restrictions to private rights; opposition is strongest among owners of large woodlots. Many owners (44%) agree that ownership does not give people rights to do whatever they want, and almost a third think that society could control what owners do with their private woodland. However, only 24% to 28% of respondents support issues such as accepting cutting restrictions on their land, legislative requirements for best management practices, or involvement of governments to regulate cutting on private land; this raises the opposition to between 30% and 41%.

Use of herbicides and pesticides

The position of woodlot owners about the use of pesticides and herbicides is also mixed, with around a third disagreeing and disapproving, and about a quarter agreeing and approving. Owners of large woodlots are slightly more likely to support the use of pesticides and herbicides.

Financial concerns

Owners of larger woodlots are more concerned about financial issues related to taxation of woodlot income, low levels of funding for forest management, and the high costs of silviculture.

1.0 INTRODUCTION

Forests and woodland are integral parts of the natural scenery of Prince Edward Island (PEI). These forests, which form part of the Atlantic Maritime Ecozone, are composed of a mix of softwoods and hardwoods, and have been intensely remodelled by uses such as shipbuilding and agriculture. Another prominent feature of PEI's forests is that 87% belong to private woodlot owners, and this is the highest proportion of private land in the country (Natural Resources Canada 2003). Therefore, primary responsibility for the stewardship of PEI's forests resides with this group. Despite this, we know little about PEI woodlot owners, and this lack of information is challenging when trying to assess sustainability of forest practices, or design forest policies for PEI.

Before this study, the last survey of PEI woodlot owners was conducted in 1984, and was aimed at measuring levels of awareness and attitudes toward forestry among the general public, the woodlot owners, students, and teachers (IEA Consulting Group 1988). Given average turnover rates for parcels of rural real estate, it is likely that many current woodlot owners are different from those surveyed nearly 20 years ago. Also, even if the ownership has not changed, the objectives and the values the owners attach to this land are likely to have changed. It is important to track trends and changes in forest owners' attitudes, values, and motivations for several reasons: (1) to determine future wood supply, (2) to assess the degree to which enlightened forest management is taking place, and (3) to monitor changes in how owners view their land and use it.

To update and complete the available information on PEI woodlot owners, the PEI Department of Agriculture and Forestry, the University of New Brunswick, and Natural Resources Canada - Canadian Forest Service (CFS) joined efforts to conduct a woodlot owner survey. The study was designed to elicit motivations, beliefs, and attitudes of PEI woodlot owners and to understand their roles in forest management decisions. The study also aims to assess the impact that size of ownership has on those dimensions.

This report presents results to all the questions that were included in the survey. It provides the most complete picture of the situation in 2002, and can serve as a reference for future comparisons. The results are organized into three sections. The first section describes PEI woodlot owners and the nature of their holdings, and includes background demographic information on owners (such as age, income, gender, and education) and information about their land holdings (number of parcels, whether they are resident or are absentee owners). The second section describes woodlot owners' activities and management of their land and includes information on management planning, harvesting, and intent to harvest. The third section focuses on the attitudes and values of PEI woodlot owners about land stewardship, forest management, and regulations.

1.1 Survey Methods

During the fall of 2001, researchers from the CFS and the University of New Brunswick developed a survey for PEI woodlot owners. The survey incorporated items from previous survey research conducted by Nova Forest Alliance (Sanderson et al. 2000) and from other sources (Roy 1983, Wellstead and Brown 1993, USDA Forest Service 2001) to increase comparability with other social science research on woodlot owners. The survey instrument was pre-tested and edited in collaboration with Agriculture and Forestry staff (see Appendix 1).

In winter 2001, the Department of Agriculture and Forestry developed a database of woodlot owners for the province. They estimated that private forests belong to some 16 600 owners. As we wanted to obtain a statistically significant representation for different sizes of woodlot ownership, a stratified sample was selected from the woodlot owners' database. The owners' population was divided into three categories: those who own from 1 to 10 acres (small woodlots), those who own from 11 to 50 acres (medium woodlots), and those who own 51 or more acres (large woodlots); a random sample was selected from each of these groups.

As we knew that not every person contacted would answer the questionnaire, and we wanted to get enough respondents to have reliable results, the sample size was selected based on the expectation of a 50% response rate. A total of 2199 questionnaires were mailed out. We asked that the individual who makes most of the forest management decisions fill out the survey. We used a modified Dillman method of mailing surveys (Salant and Dillman 1994) with follow-up reminder postcards. We completed two rounds of survey mailing and postcard follow-up and got a 52% response rate. There was no readily available information that could be used to check for the presence of non-response bias. Table 1 summarizes the sample's characteristics, the response rate, and the sampling error. Information on sampling error provides guidance on the reliability of the results for each category of ownership class and for the overall population of woodlot owners.

Table 1. Information about the mail survey and sampling error

	Woodlot Ownership Size				
	Small	**Medium**	**Large**	**Unknown**	**Total**
Estimated population	5956	6904	3781	-	16 641
Mailed out surveys	733	733	733	-	2199
Undeliverable surveys	138	39	1	-	178
Delivered surveys	595	694	772	-	2061
Unusable surveys	10	10	3	6	29
Completed surveys	244	390	441	-	1075
Response rate	41%	56%	57%	-	52%
Sampling error (for a 95% confidence level)	± 0.06	± 0.05	± 0.04	-	± 0.03

Several questionnaires (178) were returned to us as undeliverable or with mention that the addressee did not own woodland. Thus, we estimate that 2061 questionnaires were delivered to households of forest owners. Among all the questionnaires that came back, 29 could not be used for the study as they were returned with the survey identification number removed, or were otherwise ruined. Completed surveys were those that were returned at least partially filled out and that indicated the respondent owned woodland. Answers to the completed surveys were coded and entered into SPSS 11 (Statistical Package for the Social Sciences) for statistical analysis.

1.2 Data Analysis

As the study sample was stratified by size of ownership, owners belonging to each class of ownership had various chances of being chosen to participate in this study. For example, the proportion of owners of large woodlots in the sample is much higher (41%) than the proportion of this group in the estimated population of woodlot owners (23%) (Table 2). To account for the unequal chances of selection of each group, weight factors were used in frequency analysis so that results reported in tables would reflect the relative weight of each group within the overall population. Unless otherwise mentioned, all tables presenting frequency are weighted distributions, and refer to the total number of respondents (n = 1075).

Table 2. Information about the weighted sample

Size of woodlot	Estimated population		Useable questionnaires		
	Number of owners	Proportion of total	Number	Proportion	Weight factor
Small woodlots	5956	36%	244	23%	1.57
Medium woodlots	6904	41%	390	36%	1.16
Large woodlots	3781	23%	441	41%	0.55
All woodlots	16 641		1075		

In the results section, frequency tables present results for each category of ownership and for the total population. Please note that occasionally the frequencies may not add up to 100% because numbers were rounded. We used Chi-square tests to assess if the differences observed between answers provided by owners of different-sized woodlots could be attributed to chance, or if they existed in the population. In a couple of cases, the number of respondents who picked a specific answer was low, and we used the method described by Lawal and Upton (1980) to verify whether the chi-square result was still a good approximation. An asterisk (*) flags significant relationships in tables or their title. It should also be noted that some of the scales used in survey's questions were collapsed by regrouping similar choices of answer, such as totally agree and agree, or unacceptable and totally unacceptable. Finally, we found it appropriate to occasionally report on owners of "smaller" or "larger" woodlots. For example, when we say that owners of smaller woodlots are more likely to do an activity, this means that this activity is more popular among owners of small woodlots than among owners of medium woodlots, and more popular among owners of medium woodlots than among owners of large woodlots.

2.0 WOODLOT OWNERS AND THE LAND THEY OWN

2.1 Demographic Profile of PEI Woodlot Owners

We asked some background demographic questions to obtain a snapshot of who owned PEI woodland in the year 2002. We inquired about our respondents' age, gender, occupation, education, annual household income, the location of their primary residence (with respect to their woodlots), and the number of parcels they own.

2.1.1 Gender, age, occupation, education, income

Most respondents were male, which is not surprising given that we asked the person most likely to make forest management decisions to fill out the survey (Table 3). Another noticeable pattern is that women are more likely to be managing smaller woodlots than men. Most of the respondents were middle aged or older. The two age classes that comprise owners between the ages of 45 and 64 account for 51% of all owners (Table 4). Over 70% of owners are between 35 and 64 years old. There are few owners younger than 34 (6%); in fact, there are more over the age of 74 (7%) than in the 34 and younger categories. As landowners live longer, their heirs are now inheriting land at a much older age. As well, with land values increasing, people cannot afford to buy woodland until they have accumulated some capital.

Table 3. Gender of respondents*

	Percentage of respondents (according to woodlot size)			
Gender	**Small**	**Medium**	**Large**	**Total**
Male	68	79	86	77
Female	30	21	12	22
No response	2	0	2	1

*Significantly different at $p < 0.05$ (Chi-square test)

Table 4. Age of respondents

	Percentage of respondents (according to woodlot size)			
Age	**Small**	**Medium**	**Large**	**Total**
Under 35 years	9	5	3	6
35–44 years	19	19	17	19
45–54 years	28	27	30	28
55–64 years	24	23	21	23
65–74 years	11	17	17	15
75 years and older	6	8	9	7
No response	2	2	3	2

Nearly half the survey respondents work full time, year round (Table 5). As mentioned earlier, provincial and national data suggest Canadians are living longer, and the same is true of woodlot owners. Given the national population trends, it is not surprising that 25% of our respondents are retired. Common entries in the "Other" category (Table 5) included "self-employed" and "homemaker."

Table 5. Characteristics of respondents' employment

	Percentage of respondents (according to woodlot size)			
Employment	**Small**	**Medium**	**Large**	**Total**
Full-time year-round worker	45	40	46	43
Full-time seasonal worker	11	14	11	12
Part-time year-round worker	4	5	4	4
Part-time seasonal worker	2	3	3	3
Retired	23	28	26	26
Other	10	6	7	8
No response	4	3	3	4

The education attained by respondents was evenly distributed across categories (Table 6), but most have pursued postsecondary education at some point in their lives. Forty or 50 years ago, it was not uncommon for people to quit before the end of high school to work on the farm. Given the rural character and older profile of PEI woodlot owners, it is not surprising that over a quarter of woodlot owners have less than a grade 12 education. This is in line with results from the 2001 Census, which show that 29% of PEI residents aged between 25 to 64 years have not obtained a high school certificate (Statistic Canada 2003).

Table 6. Highest education attained by respondents

	Percentage of respondents (according to woodlot size)			
Education	**Small**	**Medium**	**Large**	**Total**
Less than 12th grade	20	29	29	26
High school	19	20	18	19
Some college	18	14	14	15
Associate or technical degree	11	11	12	11
Bachelor's degree	16	11	13	13
Graduate degree	12	11	10	11
No response	4	3	4	4

Most respondents fall in the middle range for annual household income (Table 7). Quite a few respondents (19%) refused to answer this question. Despite this, 43% of the respondents report earnings of between $20 000 and $60 000, and 28% more than $60 000 yearly.

Table 7. Annual household income of respondents before taxes

	Percentage of respondents (according to woodlot size)			
Household Income	**Small**	**Medium**	**Large**	**Total**
Less than $20 000	9	11	9	10
$20 000 – 39 999	18	24	24	22
$40 000 – 59 999	21	22	20	21
$60 000 – 99 999	18	15	19	17
$100 000 or more	13	11	10	11
No response	21	17	18	19

2.1.2 Woodlot owners, residence, and farm woodlots

Respondents were asked how far they lived from their closest wooded property, and if they owned a farm within 1 km of any part of their woodlot. Most live on or within 10 km of a wooded property, and do not own farms (Tables 8 and 9). Compared with the 1988 estimates, there are fewer woodlot owners who have their home on the same parcel of land as one of their woodlots. IEA Consulting Group (1988) estimated that 52% of woodlot owners had their home beside a woodlot, compared with 44% in 2002. Many factors might have contributed to this decline, one of which is the number of individuals who own forested land but are not residents of the Island. Overall, 18% of our respondents are not Island residents, and these are more likely to own small (23%) or medium woodlots (16%) than large ones (13%). Some of those non-residents are Islanders who have moved away and some are people "from away" who have bought land on the Island.

Another trend in land ownership is the link between forest and farm holdings. A third of our respondents have woodlots as a part of their farm holding, and those owning larger woodlots are more likely to be in this situation. Previous surveys of PEI woodlot owners did not provide specific information on woodlots that were part of a farm holding. As the number of farms in PEI has continued to decline, from 2217 in 1996 to 1845 in 2001 (Statistics Canada 2003), it is likely that fewer woodlots are now owned by people who farm.

Table 8. Distance that respondents reside in relation to closest woodlot*

	Percentage of respondents (according to woodlot size)			
Distance	**Small**	**Medium**	**Large**	**Total**
On wooded property	48	40	43	44
Within 10 km	14	26	27	22
Within 11–50 km	10	15	13	13
Within 51–100 km	3	2	4	3
Outside PEI	23	16	13	18
No response	1	0	1	1

*Significantly different at $p < 0.05$ (Chi-square test)

Table 9. Ownership of a farm within 1 km of respondent's woodlot*

	Percentage of respondents (according to woodlot size)			
Farm ownership	**Small**	**Medium**	**Large**	**Total**
Yes	18	36	49	33
No	78	62	49	65
No response	4	2	2	3

*Significantly different at $p < 0.05$ (Chi-square test)

2.1.3 Characteristics of woodlot and motivation for ownership

This section describes factors related to woodlot owners and their land ownership. We asked owners how many parcels they own, how long they have owned some land, how they obtained their land, and whether they have sold, bequeathed, or given away any land that they once owned. We also asked owners why they owned a woodlot.

Although most respondents own only one parcel of woodland, we can see significant variation between the size of the property and the number of parcels owned (Table 10). Owners of large acreages of woodlots (large woodlots) are more likely to own many parcels compared with those who own small or medium-sized woodlots.

Table 10. Number of individual tracts or parcels of woodland owned*

	Percentage of respondents (according to woodlot size)			
Number of parcels	**Small**	**Medium**	**Large**	**Total**
1 parcel	78	63	30	61
2 parcels	11	21	27	19
3–5 parcels	6	11	27	13
6–10 parcels	2	1	8	3
More than 10 parcels	0	3	5	3
No response	3	2	3	3

*Significantly different at $p < 0.05$ (Chi-square test)

The period of ownership varies considerably, with 37% owning a woodlot for less than 15 years and 52% owning a woodlot for more than 16 years (Table 11). In general, owners of large woodlots have owned them for longer periods.

Table 11. Period of ownership*

Period of time owned	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
0–5 years	19	11	8	13
6–10 years	16	12	9	13
11–15 years	11	12	10	11
16–30 years	31	32	36	32
31 years and more	12	21	29	20
No response	11	11	8	11

*Significantly different at $p < 0.05$ (Chi-square test)

Woodlot owners acquire land through various means, but most commonly through purchases or bequests. For all sizes of woodlots, most owners acquire their land by buying it, but many (32%) inherit woodlots (Table 12). Overall, owners of large woodlots are more likely to have bought and to have inherited land. Considering that owners of large woodlots own more parcels of land, it is not surprising that they have used more diversified methods to obtain this land. As owners might have obtained woodland by more than one method, the total for each category of ownership or for the whole sample is likely to be greater than 100%.

Table 12. Percentage of owners who acquired forest through various means

Method obtained	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Bought*	66	61	72	65
Inherited*	24	35	39	32
Gift	9	8	7	8
Other	1	1	1	1

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-1 in Appendix 2.

Respondents have obtained their woodlots through various methods and from many sources. A little more than half the owners acquired their properties from family members (either through inheritance, gift, or purchase), and this is especially true for owners of medium and large woodlots (Table 13). Acquisitions from "other individuals" are a close second (45%). Many responded to the "other" category with entries such as "real estate" or "tax sale."

Table 13. The sources from which respondents had obtained their woodlot

Former owner of woodlot	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Family*	45	58	62	54
Other individual	44	41	54	45
Land developer	1	2	1	1
Investment group	1	0	1	0.3
Logging contractor	0	0	0	0
Other	8	7	7	7

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-2 in Appendix 2.

Very few respondents have sold or parted with any woodland owned, although owners of large woodlots are more likely to have done so (Table 14). Owners who have sold or given away land sell or give to unrelated "other individuals" first (43%) and family members second (30%) (Table 15). This is similar to the distribution of former owners listed in Table 13. However, many respondents have sold their land to independent logging contractors (27%), a source from which few owners originally acquired their property.

The vast majority of woodland is held in one of two forms of ownership—individual or joint (Table 16). Joint ownership includes a husband and wife whose names are both on the deed. Over 90% of woodlot owners listed individual or joint ownership in response to this question.

Table 14. The number of times that respondents had sold or given away woodland*

Times land sold or given away	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Never	90	87	78	86
1 time	8	9	13	10
2–5 times	1	4	7	4
6 + times	1	0	1	1
No response	1	0	1	1

*Significantly different at $p < 0.05$ (Chi-square test)

Table 15. The individual or group that received woodland sold or given by respondents (n = 147)

	Percentage of respondents (according to woodlot size)			
Receiver of land sold or given	**Small**	**Medium**	**Large**	**Total**
Family	37	24	33	30
Other individual	42	44	43	43
Land developer	0	0	2	1
Investment group	0	0	2	1
Logging contractor	24	28	27	25
Other	0	5	10	5

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-3 in Appendix 2.

Table 16. Type of ownership under which the majority of respondents' property is held*

	Percentage of respondents (according to woodlot size)			
Type of ownership	**Small**	**Medium**	**Large**	**Total**
Individual	42	49	45	46
Joint	48	45	43	46
Formal partnership	3	1	5	3
Informal partnership	1	2	3	2
Non-forestry corporation	1	1	2	1
Non-profit group	1	0	0	0.5
Other	2	1	1	1
No response	1	1	0	1

*Significantly different at $p < 0.05$ (Chi-square test)

2.1.4 Reasons for owning woodland

Owners of PEI's woodland own land for various reasons. We asked respondents to list the main reason they own woodland. The responses were grouped under common themes for analysis. Most owners acquired their woodlot incidentally when they bought property for their home or farm (Table 17). Many also passively obtained their land through inheritance. In either case, woodlot owners are not necessarily seeking out opportunities to own forest land. This explains, in part, the results about low levels of active management of woodland (discussed later in the report). Lumber and firewood production are considered important by owners of larger woodlots, whereas the forest as part of vacation property is more popular among owners of small woodlots.

Table 17. Main reasons given by respondents for owning woodland*

Main reason	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Part of home or farm	31	29	28	29
Inherited or given	14	13	13	13
Personal use or enjoyment	11	8	8	9
Firewood only	5	13	7	9
Firewood and lumber	1	6	7	5
Part of vacation property	12	3	1	6
Important to family	4	5	6	5
Investment or asset	2	4	6	4
Conservation of wildlife	2	3	4	3
Recreation	4	1	1	2
Income or development	1	2	5	2
Lumber only	0	1	1	1
Other	1	0	2	1
No response	12	12	13	12

*Significantly different at $p < 0.05$ (Chi-square test)

People own woodland for more than one reason, and they use it for many reasons. We asked respondents to supply the main reason for owning woodland, and then we provided them with a list of common reasons for ownership and asked them to rate the importance they attach to each.

The themes of stewardship and legacy are important in woodlot owners' motivations for owning land (Table 18). A majority (57%) also listed "to preserve forest ecosystems" as important or very important, and this holds for every size of ownership. Even more listed "for the sake of future generations" as important or very important (67%), with owners of medium and large woodlots slightly more likely to rate this as important. Most (54%) also listed "to pass on as a heritage" as important or very important.

The incidental nature of woodland ownership for some is reflected in the response that woodland is very important as part of their farm or home (21% and 23%, respectively). However, there are important differences in the patterns of answers to these questions. Owners of small woodlots give more importance to their woodland being part of their cottage or home property, whereas owners of larger woodlots give more importance to their woodlot being part of their farm. Many owners also enjoy their property as a wildlife area or simply as "green space."

Few owners rate their woodlot as important for monetary purposes or financial gain. More than two thirds (68%) state that their woodland is not important or is slightly important as a source of retirement funds. Few respondents rely on woodland income to supplement annual income, and nearly 80% feel that their land was not important for making a living. However, the importance of the woodlots in making a living or supplementing annual income is greater for owners of larger woodlots.

Production of non-timber forest products (NTFPs) (e.g., maple syrup, Christmas trees, and berries) is also a minor factor in reasons for ownership. Production of some of the NTFPs is, however, significantly more important for owners of larger woodlots. There is also a clear trend for owners of larger woodlots to give more importance to production of firewood and timber as a motive of ownership than owners of smaller woodlots. For example, although most small woodlot owners attach little importance to harvesting firewood, most large woodlot owners rate this as an important reason for ownership.

All these reasons suggest that many PEI woodlot owners are passive owners who obtained woodland more through circumstance than intention. The implications of this are reflected in the next section, which describes woodlot owner behavior and activities. Overall, however, it appears that PEI's woodlot owners are more concerned with wildlife, green space, and ecosystem integrity than they are with earning income from their land.

Table 18. Importance of various reasons respondents own woodland

		Percentage of respondents (according to woodlot size)			
Reason	**Importance**	**Small**	**Medium**	**Large**	**Total**
For sake of future generations*	Not important/slightly imp.	25	18	18	21
	Important/very imp.	61	70	71	67
	No response	14	12	11	12
Enjoyment of owning "green space"	Not important/slightly imp.	22	26	31	26
	Important/very imp.	67	63	59	63
	No response	11	12	11	11
To preserve forest ecosystem	Not important/slightly imp.	31	29	25	29
	Important/very imp.	53	57	63	57
	No response	16	14	12	14
For wildlife enjoyment	Not important/slightly imp.	32	35	35	34
	Important/very imp.	55	53	55	54
	No response	13	13	10	12
To pass on as a heritage	Not important/slightly imp.	39	33	32	35
	Important/very imp.	48	56	57	54
	No response	12	11	10	11
To protect water quality*	Not important/slightly imp.	39	40	29	37
	Important/very imp.	46	46	59	49
	No response	15	13	12	14
Because I've inherited it*	Not important/slightly imp.	55	42	45	47
	Important/very imp.	26	42	39	36
	No response	19	16	16	17
Forest land is part of a farm*	Not important/slightly imp.	61	50	40	52
	Important/very imp.	25	39	49	36
	No response	14	11	11	12
To harvest firewood*	Not important/slightly imp.	72	47	40	54
	Important/very imp.	15	45	52	36
	No response	13	8	8	10
As a location for my permanent residence*	Not important/slightly imp.	47	57	57	53
	Important/very imp.	41	29	28	33
	No response	12	14	15	14
For recreation*	Not important/slightly imp.	48	61	56	55
	Important/very imp.	39	26	31	32
	No response	14	13	13	13
As an investment	Not important/slightly imp.	57	60	56	58
	Important/very imp.	29	27	32	29
	No response	14	13	12	13

Table 18 *(continued)*

Reason	Importance	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
As a location for my cottage*	Not important/slightly imp.	59	68	72	65
	Important/very imp.	27	18	13	20
	No response	14	15	15	14
For timber harvesting*	Not important/slightly imp.	77	64	53	66
	Important/very imp.	7	23	37	20
	No response	16	13	11	13
As a retirement fund	Not important/slightly imp.	66	70	66	68
	Important/very imp.	18	16	19	17
	No response	16	13	15	15
For hunting and fishing	Not important/slightly imp.	76	78	74	76
	Important/very imp.	7	8	12	9
	No response	17	14	15	15
To harvest non-timber forest products*	Not important/slightly imp.	75	78	70	75
	Important/very imp.	7	8	16	9
	No response	17	14	14	15
To make a living*	Not important/slightly imp.	79	79	73	78
	Important/very imp.	4	6	12	7
	No response	17	15	15	16
To supplement yearly income*	Not important/slightly imp.	81	81	74	80
	Important/very imp.	2	5	12	5
	No response	17	14	14	15
For maple syrup*	Not important/slightly imp.	82	80	78	80
	Important/very imp.	1	3	5	3
	No response	17	17	17	17
For Christmas trees	Not important/slightly imp.	81	81	81	81
	Important/very imp.	2	4	2	3
	No response	17	16	17	17
For other reasons	Not important/slightly imp.	27	24	23	25
	Important/very imp.	9	7	7	8
	No response	63	69	70	67

*Significantly different at $p < 0.05$ (Chi-square test)

3.0 WOODLOT OWNER BEHAVIOR

We are particularly interested in woodlot owner behavior. Sustainable resource management requires that we periodically assess what practices and activities are occurring on the land. On a fragmented, privately owned land base such as in PEI, one way to do that is to survey owners about what they do and why they do it. This section covers woodlot owner behavior with regard to timber harvesting and harvesting intentions, reasons for timber harvesting, harvesting NTFPs, and where woodlot owners obtain information about forest management.

3.1 Management Planning

The professional forestry community places a high value on rational planning in forest management. Clearly defined objectives are easier to meet and evaluate. However, as discussed earlier, many woodlot owners take a casual approach to woodlot management. We were curious to know how many woodlot owners have a written management plan, how many have a written management plan that they use, and how many who do not currently have a plan might be interested in having one. The vast majority of owners (85%) do not have a written management plan and are not interested in having one (Table 19). This is especially true for owners of small (92%) and medium woodlots (85%). Only 11% of owners have written plans, and 9% actively use these plans. Owners of large woodlots are more likely to use a management plan than owners of smaller woodlots. However, one out of four owners in each size of ownership shows interest in developing such a plan.

Table 19. The current situation of owners with regard to a woodlot management plan*

	Percentage of respondents (according to woodlot size)			
Management plan situation	**Small**	**Medium**	**Large**	**Total**
I am using a formal (written) management plan	4	9	17	9
I have a formal (written) management plan that I do not use	0	3	4	2
I am currently developing a formal (written) management plan	1	1	5	2
I don't have a plan but I'm interested in having one	27	24	26	26
I don't have a plan and I'm not interested in having one	65	61	43	59
No response	3	2	5	3

*Significantly different at $p < 0.05$ (Chi-square test)

3.2 Factors Affecting Woodlot Management

3.2.1 Wildlife concerns

Forests provide habitat for a wide range of species. To varying degrees woodlot owners consider the impact of their management actions on wildlife. Almost any human action in the forest can have some impact on wildlife and wildlife habitat. We asked woodlot owners whether they considered wildlife in managing their woodlots. A vast majority (80%) feel that impacts on wildlife have some bearing on what they do with their forests; owners of smaller woodlots pay more attention to this issue (Table 20).

Table 20. Impact of the possible effect on wildlife and wildlife habitat on forest management decisions*

Impact of wildlife on management decisions	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
They have a great impact	41	37	31	37
They have some impact	37	45	49	43
They don't have any impact	18	16	19	17
No response	3	2	1	2

*Significantly different at $p < 0.05$ (Chi-square test)

3.2.2 *Finding a reliable crew*

Another reason that many consider when deciding whether or not to harvest timber products from the woodlots, is finding a reliable and trustworthy crew to do the work. Table 21 shows that having a trustworthy crew is rated as important or very important by most respondents (64%). There are significant variations in the importance given to finding a trustworthy crew according to the size of woodlots owned. Only 50% of the owners of small woodlots consider this an important reason; this increases to 67% for owners of medium woodlots and to 81% for owners of large woodlots. The influence of the size of ownership is also related to the number of owners who attach no importance to finding trustworthy crew, with owners of small woodlots being more likely to disregard this factor than owners of medium or large woodlots.

The assessment of importance of finding a reliable crew is likely associated with the fact that many woodlot owners have never harvested timber and have no intention of doing so (Tables 22 and 23). In such cases, the harvesting crew factor has no influence on a decision that had already been made (as many respondents indicated next to this question on the survey with a handwritten note).

Table 21. Importance of finding a trustworthy harvesting crew in deciding to harvest or remove trees from a woodlot*

Importance of a trustworthy harvesting crew	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Very important	25	35	42	33
Important	25	32	39	31
Slightly important	7	5	5	5
Not important at all	34	23	10	24
No response	9	6	5	7

*Significantly different at $p < 0.05$ (Chi-square test)

3.3 Harvesting Intentions and Implications for Wood Supply

As shown in Table 22, 57% all woodlots have been harvested in the last 10 years. There is a strong relationship between ownership size and the rate of harvesting. Involvement in forest harvesting over the last 10 years increases with the size of the woodlot. Owners of small woodlots are two times less likely than owners of medium woodlots and three times less likely than owners of large woodlots to have harvested. Almost one out of two owners of small woodlots, one out of four owners of medium woodlots, and one out of ten owners of large woodlots never harvested trees from their woodlots.

Table 22. How often the respondent or someone they asked harvested trees from a woodlot*

How often land was harvested	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Never	49	23	10	29
At least once a year	13	29	37	25
Not in the last year but once over the last 5 years	17	24	31	23
Not in the last 5 years but at least once over the last 10	7	10	9	9
Not in the last 10 years but at least once before then	10	10	10	10
No response	4	4	3	4

*Significantly different at $p < 0.05$ (Chi-square test)

The observed relationship between ownership size and timber activity is not surprising; larger parcels have greater potential financial return, have better economies of scale, and represent a larger fixed asset for most woodlot owners. Table 23 demonstrates the implications of harvest intentions for PEI's timber supply. In this stratified sample, owners of large woodlots account for 41% of the respondents, and control 82% of the woodland area, according to respondents' estimates of their forest acreage. On the other hand, owners of small woodlots account for 23% of our sample, but hold only 2% of the total forested land owned by our sample. Overall, the percentage of land where harvesting has taken place in the last 10 years accounts for 84% of the land owned by our sample. Only 6% of the land belongs to owners who have no intention of harvesting.

Owners of small woodlots show the least interest in harvesting and owners of large woodlots show the greatest interest, but owners of medium woodlots fall in the middle with respect to harvesting behaviors and intentions. Whereas 61% of owners with between 11 and 50 acres have harvested timber in the last 10 years, about 13% have not and do not intend to do so. Of the remaining, 15% who have not harvested in the last 10 years mentionned that they might harvest in the future.

Table 23. Timber harvesting activities and affected woodlot area

Harvesting activities	Number of	Woodlots			
		Small	Medium	Large	Total
Never intend to harvest	Owners	85	50	24	159
	Acres	434	1454	2285	4173
Might consider harvesting	Owners	44	60	47	151
	Acres	238	1926	4564	6728
Have harvested in the last 10 years	Owners	89	239	333	661
	Acres	482	7599	47 817	55 898
No response	Owners	26	41	37	104

3.4 Timber Harvesting on Woodlots

A series of questions was addressed only to the 676 owners who had harvested or removed trees from their land in the last 10 years. Results of these questions are presented in Tables 24 to 29. The reasons some of the other landowners did not harvest are provided in Tables 30 and 31. Information from questions pertaining to all respondents resumes on Table 32.

3.4.1 Reasons for harvesting timber, and products harvested

Table 24 shows that few owners harvest to improve hunting or recreation opportunities, or to avoid constraints in the future. The only significant difference between size of ownership and these reasons to harvest is that owners of small woodlots (23%) are twice as likely as owners of medium (10%) or large woodlots (11%), to cite scenic and recreation improvement as an important motive. Also, few respondents harvest trees because of financial reasons, which corresponds to the low percentage of people who owned woodland for monetary gain (Tables 17 and 18). Here again, owners of larger woodlots were more likely to rate financial reasons as important.

The most common reasons for harvesting are: the trees are mature or naturally damaged, to improve quality of remaining trees, or the owner needs the wood for personal use. Tree maturity is a more important motive for owners of larger woodlots. Harvesting for personal use is an important motive for owners of medium-sized woodlots, whereas removal of damaged trees and removal to improve the quality of remaining trees are equally important to all owners.

This latter trend coincides with what is observed for products harvested for personal use (as opposed to being sold) (Table 25). Overall, owners of medium woodlots are more likely to harvest timber products for their own use, whereas owners of large woodlots are more likely to harvest timber products for sale. Firewood (68%) is the most popular product used by all owners, followed by softwood sawlogs (32%), posts, piles, and pilings (13%), and hardwood sawlogs (13%). Softwood sawlogs (34%), pulpwood (30%), firewood (14%), and hardwood sawlogs (11%) are the most popular products for sale.

Table 24. Importance of various reasons in the decision to harvest in the last 10 years (n = 676)

Reason	Importance	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Trees were mature*	Not important/slightly imp.	35	22	14	23
	Important/very imp.	45	65	76	64
	No response	20	13	10	14
To improve quality of remaining trees	Not important/slightly imp.	23	27	34	28
	Important/very imp.	60	55	53	56
	No response	17	17	13	16
Remove trees damaged by nature	Not important/slightly imp.	28	31	40	33
	Important/very imp.	57	54	51	54
	No response	16	15	10	13
Needed the wood for own use*	Not important/slightly imp.	49	33	42	39
	Important/very imp.	30	56	48	47
	No response	21	11	10	13
To achieve objective in management plan*	Not important/slightly imp.	65	58	55	59
	Important/very imp.	9	21	25	20
	No response	25	21	20	22
To clear land for conversion*	Not important/slightly imp.	58	66	55	61
	Important/very imp.	19	13	30	20
	No response	23	21	14	20
Had the time to do it	Not important/slightly imp.	58	62	63	62
	Important/very imp.	17	16	19	17
	No response	25	22	18	21
Price was right*	Not important/slightly imp.	71	65	58	64
	Important/very imp.	6	13	24	14
	No response	23	22	18	21
To improve for scenic & recreation value*	Not important/slightly imp.	57	68	73	67
	Important/very imp.	23	11	10	14
	No response	20	21	17	19
Needed money*	Not important/slightly imp.	68	69	65	68
	Important/very imp.	9	10	20	13
	No response	23	21	15	20
Contractor contacted me to do the harvest*	Not important/slightly imp.	71	65	64	66
	Important/very imp.	4	12	20	13
	No response	25	23	16	21
To avoid harvest restrictions in the future	Not important/slightly imp.	73	72	74	73
	Important/very imp.	2	7	9	6
	No response	25	21	17	21
To improve hunting opportunities	Not important/slightly imp.	74	76	82	77
	Important/very imp.	1	2	2	2
	No response	25	21	16	21
Other	Not important/slightly imp.	20	20	19	19
	Important/very imp.	4	5	3	4
	No response	76	76	78	77

*Significantly different at $p < 0.05$ (Chi-square test)

Table 25. Products and use of trees harvested or removed by those who have harvested in the last 10 years (n = 676).

Product Harvested		Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Firewood	for own use*	57	74	67	68
	for sale*	6	11	25	14
Posts, pilings	for own use*	9	14	17	14
	for sale*	1	4	8	4
Hardwood sawlogs	for own use*	6	19	9	13
	for sale*	4	7	22	11
Softwood sawlogs	for own use*	19	37	33	32
	for sale*	18	28	54	34
Pulpwood	for own use*	0	4	4	3
	for sale*	14	24	51	30
Hardwood veneer	for own use*	2	1	2	1
	for sale*	1	4	11	6
Softwood veneer	for own use*	0	2	1	1
	for sale*	1	4	16	7
Christmas trees	for own use*	6	6	5	6
	for sale*	0	1	2	1
Other products	for own use*	6	2	3	3
	for sale*	0	2	2	2

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-4 in Appendix 2.

3.4.2 Harvesting methods, who does the harvest, and experience with contractors

Of the given categories for harvesting methods, clearcutting is the least used harvesting method, although it is much more popular among owners of large woodlots (Table 26). Salvaging fallen and dying trees is the most common method of harvest, followed by selection cutting. Owners of medium woodlots are more likely to salvage fallen and dying trees. Many owners chose not to answer this question.

Table 26. Harvesting methods used to remove trees by those who have harvested in the last 10 years (n = 676).

Method	Frequency	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Cutting all the trees*	Never	45	32	18	31
	Sometimes	13	23	34	24
	Often	4	7	15	9
	Always	6	12	18	12
	Don't know	2	2	2	2
	No response	29	24	12	22
Cutting only preselected trees	Never	13	10	13	12
	Sometimes	22	20	31	24
	Often	10	17	13	14
	Always	26	22	16	21
	Don't know	2	3	3	3
	No response	27	27	24	26
Cutting a couple of trees here and there*	Never	13	15	17	15
	Sometimes	32	23	32	28
	Often	10	15	11	13
	Always	12	12	4	10
	Don't know		4	3	3
	No response	32	31	32	32
Salvaging fallen and dying trees*	Never	11	5	10	8
	Sometimes	15	18	21	19
	Often	21	19	21	20
	Always	29	36	22	30
	Don't know	1	3	2	2
	No response	22	18	24	21
Other	Never	6	5	4	5
	Sometimes	0	2	1	1
	Often	0	0	1	0
	Always	0	1	1	1
	Don't know	2	3	5	4
	No response	91	88	89	89

*Significantly different at $p < 0.05$ (Chi-square test)

Most of the woodlot owners who harvest timber from their woodlots do so with their own labor or with the help of family (Table 27). About a third use contractors or hire their own crew for the job. Overall, owners of smaller woodlots are more likely to harvest by themselves or with the help of family and friends, whereas owners of larger woodlots are more likely to hire independent contractors. The question referring specifically to experience with logging contractors confirms this trend. Table 28 shows that most owners of small and medium woodlots have not had experience with logging contractors, but that most owners of large woodlots have. We asked the 36% of woodlot owners who had dealt with contractors if they were satisfied with their experiences with them and if they would use contractors for future harvests. Overall, satisfaction with contractors is evenly distributed, although owners of small woodlots express greater dissatisfaction with contractors (Table 29).

Table 27. Who conducted most of the harvesting on respondents' woodlots (n = 676)*

	Percentage of respondents (according to woodlot size)			
Who did most of the harvesting	**Small**	**Medium**	**Large**	**Total**
Just myself	29	22	15	22
Myself and/or members of my family	38	40	32	37
My friends and neighbors	4	5	4	4
A crew that I hired	9	3	6	6
An independent contractor	12	24	40	26
Other	4	3	2	3
No response	4	2	1	2

*Significantly different at $p < 0.05$ (Chi-square test)

Table 28. Whether respondents had experience with logging contractors on their land (n = 676)*

	Percentage of respondents (according to woodlot size)			
Experience with logging contractors	**Small**	**Medium**	**Large**	**Total**
Yes	16	31	61	36
No	80	68	38	62
No response	4	1	1	2

*Significantly different at $p < 0.05$ (Chi-square test)

Table 29. Satisfaction of respondents who had experience with logging contractors (n = 296) *

	Percentage of respondents (according to woodlot size)			
Satisfaction with contractors	**Small**	**Medium**	**Large**	**Total**
Yes I was entirely satisfied	23	42	44	41
Not entirely satisfied, but it is possible that I will hire them again	27	31	33	32
No I was not satisfied and I would not hire their services again	50	26	22	26
No response	0	1	1	1

*Because the numbers of respondents to these questions were few and the categories of answers were many, the Chi-square test did not provide a reliable estimate of the statistical significance of the answers for the sizes of ownerships.

3.5 Non-harvesting Woodlot Owners

Table 30 shows that many of those who had not removed trees from their land in the last 10 years never intended to harvest, and there is a significant variation in the intention of woodlot owners according to the size of their woodlot. Owners of smaller woodlots are more likely to never want to harvest (61%) than owners of medium (40%) or large woodlots (29%). For those who would consider harvesting, information as to why they had not harvested in the past 10 years is provided in Table 31.

Table 30. Harvest intentions of those respondents who had not harvested in the last 10 years* (n = 399)

	Percentage of respondents (according to woodlot size)			
Harvest intentions	**Small**	**Medium**	**Large**	**Total**
Intend to never harvest	61	40	29	50
Might harvest	31	47	54	40
No response	8	13	17	10

*Significantly different at $p < 0.05$ (Chi-square test)

Once again, Table 31 suggests that financial considerations hold a low priority for woodlot owners and do not factor heavily in to whether they harvest (see the categories of low prices, market, income tax, and pension). Common reasons for not harvesting have more to do with being too busy, concern over damaging residual trees, or having no financial needs. For most of the reasons, the importance does not vary significantly with the size of ownership. Many owners of large woodlots (30% to 35%) did not answer these questions.

3.6 Non-timber Forest Products

We asked all respondents about their harvest of NTFPs. Table 32 shows that few landowners, in all categories of ownership, are engaged in the harvest of any NTFPs. The NTFPs that owners most often harvest are berries for personal use, with boughs or brush being the second most frequent; other responses include gravel or aggregates. Christmas tree harvesting was included because respondents probably harvested a few for their own use and did not consider them to be in the same category as other trees harvested or removed from their land. The only significant difference in use of NTFPs according to the size of woodlot ownership is in the sale of berries. This activity, although it remains marginal for all sizes of ownership, occurs more often on large woodlots.

Table 31. Reasons for not harvesting by those who would consider doing so, but who had not harvested in the last 10 years (n = 172)

Reasons for not harvesting	Importance	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Cutting could damage remaining trees	Not important/slightly imp.	38	48	37	42
	Important/very imp.	49	38	33	42
	No response	13	14	30	16
I was too busy with other activities*	Not important/slightly imp.	54	48	19	46
	Important/very imp.	34	42	50	40
	No response	13	10	31	14
I didn't have any financial need to do so	Not important/slightly imp.	54	44	27	46
	Important/very imp.	28	41	46	37
	No response	18	14	27	18
The trees were not large enough to sell	Not important/slightly imp.	62	54	44	56
	Important/very imp.	23	31	26	27
	No response	15	14	30	17
I did not know what or how to sell	Not important/slightly imp.	62	61	50	60
	Important/very imp.	20	24	19	22
	No response	18	14	31	19
There were access or road problems*	Not important/slightly imp.	64	61	46	60
	Important/very imp.	18	30	15	22
	No response	18	10	38	18
I was unable due to absence from the area	Not important/slightly imp.	62	63	54	61
	Important/very imp.	20	24	19	22
	No response	18	13	27	17
I have just bought or inherited the land	Not important/slightly imp.	59	62	44	58
	Important/very imp.	23	17	26	21
	No response	18	21	30	21
Extra income could increase income tax	Not important/slightly imp.	69	75	54	69
	Important/very imp.	13	8	15	11
	No response	18	17	31	20
I could not find a market	Not important/slightly imp.	76	73	58	72
	Important/very imp.	4	8	8	7
	No response	20	18	35	22
The prices were too low	Not important/slightly imp.	79	73	62	74
	Important/very imp.	3	10	4	6
	No response	18	17	35	20
I was unable due to age	Not important/slightly imp.	79	77	58	75
	Important/very imp.	3	4	8	4
	No response	18	18	35	21
Extra income could decrease my pension*	Not important/slightly imp.	75	80	67	76
	Important/very imp.	7	0	0	3
	No response	18	20	33	21
Other	Not important/slightly imp.	18	14	7	15
	Important/very imp.	3	13	15	9
	No response	79	73	78	76

*Significantly different at $p < 0.05$ (Chi-square test)

Table 32. Forest products collected by respondents and their families in the past 5 years

		Percentage of respondents (according to woodlot size)			
Item	**Use**	**Small**	**Medium**	**Large**	**Total**
Game birds	Not collected	91	89	87	89
	Personal use	4	7	8	6
	Gift	0.5	0.5	0.5	0.5
	Sale	N.A.	N.A.	N.A.	N.A.
Fur animals	Not collected	91	93	93	92
	Personal use	2	2	2	2
	Gift	0	0.2	0	0.1
	Sale	0.5	0.2	0.4	0.4
Mushrooms	Not collected	89	91	88	89
	Personal use	5	5	7	6
	Gift	0.5	0.2	0.4	0.4
	Sale	0	0.2	0.4	0.2
Maple sap	Not collected	93	92	90	92
	Personal use	2	3	5	3
	Gift	0	0.2	1	0.3
	Sale	0	0.7	0.8	0.5
Berries	Not collected	71	74	67	71
	Personal use	23	21	26	23
	Gift	0	0.2	1	0.4
	Sale*	0	0.4	3	0.8
Fiddleheads	Not collected	88	91	89	90
	Personal use	6	4	6	5
	Gift	0	0	0	0
	Sale	0	0	0	0
Boughs/brush	Not collected	75	77	77	76
	Personal use	20	17	17	18
	Gift	0.5	0.7	0.8	0.6
	Sale	0	0.4	0.8	0.4
Fish	Not collected	90	89	86	89
	Personal use	4	6	8	6
	Gift	0	0	0.4	0.1
	Gift	n.a.	n.a.	n.a.	n.a.
Handicraft material	Not collected	85	85	84	85
	Personal use	9	10	11	10
	Gift	0	0.4	1	0.4
	Sale	0.5	0.7	0.4	0.3

Table 32. (*continued*)

Item	Use	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Peat moss, soil	Not collected	89	91	87	89
	Personal use	6	5	7	6
	Gift	0	0	0	0
	Sale	0	0	0.4	0.1
Other	Not collected	92	94	92	93
	Personal use	2	2	2	2
	Gift	0	0	1	0.2
	Sale	0	0.2	0.8	0.3

n.a.: not applicable
*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-5 in Appendix 2.

3.7 Other Forest Management Activities

Many woodlot management activities, including harvest of various products, occur rarely. Therefore, we asked woodlot owners if they had participated in an activity in the last 5 years (the past) or if they intended to engage in the activity in the next 5 years (the future).

Of the given categories, the most frequent activities are removing low quality trees, selection cutting, planting trees, and spacing of young stands (with an almost even distribution for each between the last 5 and the next 5 years) (Table 33). The least popular activities are developing Christmas trees, subdividing the woodlot, applying pesticides or herbicides, and wildlife projects.

The greatest difference between the frequency of an activity in the past and in the future occurs with management plans; there was an 11% increase between those who had prepared or updated a management plan and those who plan to. This coincides with the interest displayed by owners who said that they did not have a management plan but would consider getting one. This also indicates a need for these owners to learn how to develop their plan or get help preparing it.

Owners of larger woodlots engage in more management activities than owners of smaller woodlots. We also noticed an important difference in the non-response rate for these questions; owners of smaller woodlots are more likely not to answer.

Table 33. Past and proposed activities on woodlots

Activity	Done or planned	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Removing low quality trees*	Done in last 5 years	34	42	37	38
	Planned for next 5 years	35	28	33	32
Selection cutting*	Done in last 5 years	18	27	33	25
	Planned for next 5 years	21	22	32	24
Plant trees*	Done in last 5 years	20	18	27	21
	Planned for next 5 years	24	18	28	22
Thinning/spacing*	Done in last 5 years	17	14	19	17
	Planned for next 5 years	23	18	24	21
Roads and trails*	Done in last 5 years	10	19	24	17
	Planned for next 5 years	15	14	23	16
Boundary lines*	Done in last 5 years	14	16	21	16
	Planned for next 5 years	15	14	22	16
Management plan*	Done in last 5 years	3	8	16	8
	Planned for next 5 years	20	15	27	19
Recreation projects*	Done in last 5 years	10	6	7	8
	Planned for next 5 years	14	8	13	11
Wildlife projects*	Done in last 5 years	3	5	7	5
	Planned for next 5 years	8	6	13	8
Subdivide parcel*	Done in last 5 years	1	5	5	4
	Planned for next 5 years	6	5	7	6
Apply biocides*	Done in last 5 years	3	4	12	5
	Planned for next 5 years	2	5	7	4
Development of Christmas trees*	Done in last 5 years	1	2	2	2
	Planned for next 5 years	3	3	4	3
Other*	Done in last 5 years	2	2	1	1
	Planned for next 5 years	4	4	5	4

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-6 in Appendix 2.

3.8 Sources of Information for Woodlot Owners

Landowners were asked questions about sources of information and their familiarity with woodlot owner organizations to get an idea about what (if any) information landowners had received, where they might obtain information, and their interest in management programs and owner associations. Table 34 shows that most respondents owning small or medium woodlots had not received advice about managing their woodlot, whereas most respondents owning large woodlots had received advice.

Table 34. Had the respondents ever received advice or information about the woodland they own in PEI? *

Advice received	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes	23	35	57	36
No	74	62	41	62
No response	3	2	2	2

*Significantly different at $p < 0.05$ (Chi-square test)

For landowners who received advice, most received it from a provincial government technician; this is more likely to be the case for owners of larger woodlots (Table 34). Many received advice from contractors (26%) or other landowners (24%). Respondents who checked the "Other" category usually replied that they received advice from family.

Table 35. Source of advice for the respondents who had received advice on their woodlots (n =444)

Received advice from	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
PEI Forest Service technician*	47	71	79	68
Logging contractor	16	29	29	26
Other landowner, neighbor	34	22	21	24
Private consultant	15	9	9	10
Company forester or technician	9	6	14	10
Watershed management groups	3	9	10	8
Employee of non-profit group	9	4	9	7
Woodlot owner association*	0	9	4	5
I don't remember	6	2	1	3
Other	6	8	4	6

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-7 in Appendix 2.

Owners were asked to assess the usefulness of various tools used in learning more about woodlot management. Consulting with a forester or other natural resources professional and pamphlets or newsletters are the most useful tools for landowners (Table 36). Home study courses, talking with contractors, and membership in a landowner organization are rated as the least useful means. This likely indicates unwillingness for landowners to commit much time to learning about management and a general distrust of logging contractors. Owners of large woodlots are more likely to find that conferences and workshops, visits to other woodlots, and discussions with foresters or contractors are useful tools.

Table 36. Usefulness of different learning tools to assist owners in managing their woodlots

Ways of learning	Usefulness	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Talking with a forester*	Not useful	29	21	17	23
	Neither	8	8	9	8
	Useful	35	40	51	41
	Don't know	11	12	9	11
	No response	16	19	14	17
Pamphlets or newsletters	Not useful	27	22	20	23
	Neither	10	8	10	9
	Useful	36	39	45	39
	Don't know	10	12	10	11
	No response	17	19	15	17
Books	Not useful	30	27	23	27
	Neither	9	7	10	8
	Useful	31	33	37	33
	Don't know	12	13	12	13
	No response	18	19	18	18
Magazines or newspapers	Not useful	30	26	22	26
	Neither	12	9	13	11
	Useful	27	33	35	31
	Don't know	11	13	10	12
	No response	20	20	20	20
Videotapes for home viewing	Not useful	33	26	23	29
	Neither	10	10	12	10
	Useful	24	31	35	29
	Don't know	13	13	12	13
	No response	20	21	19	20
Television or radio programs	Not useful	32	26	26	28
	Neither	13	13	12	13
	Useful	23	28	30	27
	Don't know	13	12	12	12
	No response	19	21	19	20
Visiting other woodlots*	Not useful	36	29	21	30
	Neither	9	11	12	10
	Useful	21	25	39	27
	Don't know	13	14	10	13
	No response	21	21	18	20

Table 36 (*continued*)

Ways of learning	Usefulness	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Websites	Not useful	29	31	32	31
	Neither	11	10	12	11
	Useful	28	21	20	23
	Don't know	13	16	14	15
	No response	19	22	22	21
Conferences or workshops*	Not useful	38	35	26	34
	Neither	11	10	13	11
	Useful	14	18	28	19
	Don't know	16	14	13	14
	No response	21	23	20	21

3.9 Woodlot Owner Associations

Tables 37 to 39 show that landowners are not very involved with woodlot associations. A small number of landowners have had contact with woodlot associations or have received service from them, and this is more frequent for owners of larger woodlots. Overall, more than a third of our respondents and 48% of owners of large woodlots would consider becoming a member of a woodlot association. However, most owners of small and medium woodlots are not interested in joining such an organization.

Table 37. Attended meetings or received information from a woodlot owners' organization*

Attended meetings or received information	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes	6	16	28	15
No	93	83	71	84
No response	1	1	1	1

*Significantly different at $p < 0.05$ (Chi-square test)

Table 38. Use of technical services from or attended seminars offered by a woodlot owners' organization

Used services or attended seminars	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes	3	7	9	6
No	95	92	90	93
No response	1	2	1	1

Table 39. Interest in being a member of a woodlot owners' association*

Interested in being a member of an association	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes, I am already a member	1	2	7	3
Yes, I could consider it	34	39	48	39
No	63	56	44	56
No response	2	3	2	2

*Significantly different at $p < 0.05$ (Chi-square test)

3.10 Woodlot Management Programs

Owners were also asked a few questions about management programs on PEI. Most respondents are unaware of the existence of such programs, although the degree of awareness increases with the size of ownership (Table 40). Owners were also asked if they would consider a long-term management agreement. Over half are not interested, but over a third say they might be (Table 41). Entering a long-term agreement is more appealing to owners of larger woodlots.

Table 40. Awareness about woodlot management programs to assist woodlot owners*

Aware of management programs available	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes	17	25	34	24
No	81	73	65	74
No response	2	2	1	2

*Significantly different at $p < 0.05$ (Chi-square test)

Table 41. Interest in long-term agreement (10–20 years) with an agency that would assist them in managing their forest*

Interested in long-term management agreement	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Yes	9	5	12	8
Maybe	29	39	44	36
No	61	54	42	54
No response	1	2	2	2

*Significantly different at $p < 0.05$ (Chi-square test)

4.0 WOODLOT OWNER ATTITUDES

We were interested in the opinions of woodlot owners about forest-related topics such as stewardship, legislation, harvest methods, and policy. This section reviews responses to these questions.

The first, which follows from the previous section, deals with overall satisfaction with government programs directed at woodlot owners. Many are satisfied with government efforts to encourage and support woodland stewardship (Table 42). There were a few non-responses to this question, which suggests they may not have enough information to form an opinion.

Table 42. Satisfaction with the government's efforts to support and encourage better woodlot management

	Percentage of respondents (according to woodlot size)			
Satisfaction	**Small**	**Medium**	**Large**	**Total**
Totally satisfied	4	5	3	4
Satisfied	45	46	51	46
Dissatisfied	24	27	26	26
Totally dissatisfied	9	10	12	10
No response	18	13	9	14

We asked woodlot owners their opinions about sustainable management on woodland owned by individuals vs. woodland owned by timber harvesting contractors. Most owners did not know or gave no response. Over a quarter believe sustainable management is practiced on individual woodlots, whereas nearly one fifth believe the opposite (Table 43). Many also have concerns with sustainable management on land owned by contractors, especially among owners of large woodlots. This is consistent with previous responses, which reveal that owners often have a negative view of contractors.

Table 43. Assessment of sustainability of forest management according to the ownership

		Percent of respondents (according to woodlot size)			
Sustainable management on woodland owned by	**Response**	**Small**	**Medium**	**Large**	**Total**
Contractors*	Yes	8	7	7	7
	No	27	34	40	33
	Don't know	60	50	46	52
	No response	5	9	7	7
Individuals*	Yes	22	28	31	26
	No	17	19	23	19
	Don't know	55	48	41	49
	No response	6	5	5	5

*Significantly different at $p < 0.05$ (Chi-square test)

Table 44 shows respondents' level of agreement with given statements about forest management in PEI. Many owners disagree with statements that would affect their freedom to choose their management methods. Clearly, they, and especially owners of large woodlots, want maximum flexibility in choosing how to manage their land. Nevertheless, most owners agree that greater efforts should be made to protect old-growth forests. Respondents are most uncertain about statements concerning management skills of other landowners and 48% express concerns about harvest sustainability.

Table 44. Respondents' level of agreement with given statements about forest management in PEI

Statement	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Greater efforts should be made to protect old growth	Totally disagree/Disagree	7	8	10	8
	Neutral	15	19	20	18
	Agree/Totally agree	64	59	57	60
	Don't know	7	9	5	8
	No response	7	5	8	6
PEI will have little wood to harvest in 10–20 years*	Totally disagree/Disagree	9	16	15	14
	Neutral	12	10	12	11
	Agree/Totally agree	47	47	50	48
	Don't know	26	25	18	24
	No response	5	3	5	4
Woodland that is not actively managed is wasted	Totally disagree/Disagree	32	34	28	32
	Neutral	21	22	23	22
	Agree/Totally agree	30	30	36	31
	Don't know	11	8	6	9
	No response	7	5	7	6
Legislation should require owners to adhere to best management practices*	Totally disagree/Disagree	27	38	45	36
	Neutral	22	19	19	20
	Agree/Totally agree	34	27	21	28
	Don't know	11	12	8	10
	No response	7	5	8	6
Most owners in PEI don't know how to look after forests*	Totally disagree/Disagree	16	24	23	21
	Neutral	22	22	26	23
	Agree/Totally agree	28	27	31	28
	Don't know	26	22	14	22
	No response	7	4	6	6
Environmentalists go too far in trying to restrict logging*	Totally disagree/Disagree	35	28	24	30
	Neutral	23	27	23	25
	Agree/Totally agree	21	28	35	27
	Don't know	15	11	10	12
	No response	7	5	8	6

Table 44. (*continued*).

Statement	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
I would accept cutting restrictions on my land	Totally disagree/Disagree	39	46	43	43
	Neutral	19	15	19	17
	Agree/Totally agree	24	24	23	24
	Don't know	11	11	7	10
	No response	6	5	8	6
Properly applied pesticides are an acceptable tool*	Totally disagree/Disagree	27	34	26	30
	Neutral	28	24	21	25
	Agree/Totally agree	22	20	29	23
	Don't know	16	17	15	16
	No response	7	5	8	6

*Significantly different at $p < 0.05$ (Chi-square test)

Woodlot owner opinions on clearcutting as a harvesting practice are mixed (Table 45). Most feel that clearcutting should be allowed if the practice is judged suitable for regeneration. However, nearly a quarter of respondents feel that clearcutting should not be allowed; this belief is more common among owners of small and medium woodlots.

Table 45. Respondents' attitudes toward clearcutting*

Attitude toward clearcutting	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
I am unfamiliar with it and do not have an opinion	11	13	10	11
There should be no restrictions placed upon clearcutting	4	3	7	5
Clearcutting should be allowed only where suitable	52	59	65	58
Clearcutting should not be allowed anywhere	30	22	15	23
No response	4	3	3	3

*Significantly different at $p < 0.05$ (Chi-square test)

Once again, Table 46 shows that most owners, regardless of the size of woodlots they own, are concerned with the amount of wood being cut on PEI. The lack of financial incentives for preservation is also a concern for most woodlot owners. This is in line with other opinions expressed on management and woodlot owners' behavior. Not surprisingly, woodlot owners prefer incentives for sustainable management rather than regulatory approaches to achieve sustainability targets. In keeping with their responses listed in Tables 37 to 39, owners are least concerned about a lack of landowner organizations. Financial issues such as taxation of woodlot income, low funding for forest management, and the high cost of silviculture are greater concerns among owners of larger woodlots.

Landowners were asked to indicate their level of agreement with given perspectives on forest issues, and their responses coincide with results obtained frrom previous questions. Again, concerns over contractors' activities, unsustainability of timber resources, and support or financial aid for protection are emphasized by a majority of respondents (Table 47). Respondents still express mixed opinions regarding the quality of stewardship exert by landowners. Once more, we note that owners of larger woodlots are somewhat more likely to express their opposition to regulation of their activities, as they are more likely to consider herbicides an appropriate tool for forest management.

Table 48 shows responses to a set of questions addressing the acceptability of various forest management practices. Respondents are concerned about clearcutting on private land, but owners of larger woodlots find this practice more acceptable. Concern about the use of herbicides is the next highest priority item, and owners of large woodlots deem this practice more acceptable, which coincides with the position they have expressed previously on the use of pesticides and herbicides (Tables 44 and 47). Other management practices are judged acceptable by most landowners, except that many respondents are uncertain about converting sites from mixedwood to softwood to increase timber production.

Table 46. Concerns about problems facing woodlot owners today

Issue	Concern	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Too much wood being cut	Not concerned	9	10	12	10
	Neutral	18	22	19	20
	Concerned	62	63	61	62
	No response	10	5	8	8
The lack of financial incentives for preservation	Not concerned	12	14	13	13
	Neutral	28	24	20	25
	Concerned	48	51	55	51
	No response	12	11	11	12
The lack of knowledge of cutting methods	Not concerned	14	17	19	17
	Neutral	31	34	33	33
	Concerned	44	40	38	41
	No response	11	9	10	10
The low level of funding for forest management*	Not concerned	18	19	14	18
	Neutral	37	28	26	31
	Concerned	32	41	48	39
	No response	13	11	12	12
Public perceptions of timber harvesting	Not concerned	16	16	16	16
	Neutral	35	36	32	35
	Concerned	37	36	41	37
	No response	12	12	12	12
Taxation of woodlot income*	Not concerned	23	21	18	21
	Neutral	40	35	30	36
	Concerned	25	34	40	32
	No response	12	10	12	11
The high cost of silviculture*	Not concerned	16	19	16	17
	Neutral	45	40	33	40
	Concerned	26	27	38	29
	No response	13	13	14	13
The lack of strong landowner organizations	Not concerned	20	24	23	22
	Neutral	46	43	39	43
	Concerned	21	21	26	22
	No response	13	12	13	12

*Significantly different at $p < 0.05$ (Chi-square test)

Table 47. Agreement with given perspectives on forest issues

Issue	Agreement	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Timber harvesting contractors should be strictly regulated	Totally disagree/Disagree	8	7	9	8
	Neutral	9	13	15	12
	Agree/Totally agree	68	71	67	69
	Don't know	9	5	4	6
	No response	5	4	5	5
Government should provide incentives for private owners to establish protected areas	Totally disagree/Disagree	7	9	8	8
	Neutral	15	13	19	15
	Agree/Totally agree	62	65	62	63
	Don't know	10	7	4	7
	No response	7	5	7	6
Ownership doesn't give people the right to do whatever they want	Totally disagree/Disagree	25	25	27	25
	Neutral	16	21	21	19
	Agree/Totally agree	46	45	42	44
	Don't know	7	5	3	5
	No response	7	5	7	6
Government should not regulate private cutting*	Totally disagree/Disagree	32	26	19	27
	Neutral	17	22	20	20
	Agree/Totally agree	34	42	48	41
	Don't know	11	4	5	7
	No response	6	5	7	6
Society should not control what owners do with private forests	Totally disagree/Disagree	32	33	27	31
	Neutral	23	19	23	22
	Agree/Totally agree	33	39	40	37
	Don't know	5	4	3	4
	No response	6	5	6	5
Properly applied herbicides are an appropriate tool*	Totally disagree/Disagree	32	36	27	33
	Neutral	25	23	22	23
	Agree/Totally agree	22	23	33	25
	Don't know	16	13	11	13
	No response	6	5	7	6
Woodlot owners in PEI are good forest stewards*	Totally disagree/Disagree	22	22	23	22
	Neutral	26	28	29	28
	Agree/Totally agree	16	24	27	22
	Don't know	29	20	14	22
	No response	7	6	7	6
There is sufficient wood in PEI for all users	Totally disagree/Disagree	59	58	53	57
	Neutral	10	12	14	12
	Agree/Totally agree	4	7	11	7
	Don't know	21	19	17	19
	No response	5	5	5	5

*Significantly different at $p < 0.05$ (Chi-square test)

Table 48. Acceptability of given forest management practices for PEI

Management practice	Acceptance	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Cutting selectively to maintain wildlife habitat	Totally unacceptable/unacceptable	3	3	3	3
	Neither	9	7	14	9
	Acceptable/Totally acceptable	77	76	71	75
	Don't know	7	9	5	7
	No response	5	5	7	5
Closing forest access roads to control illegal dumping*	Totally unacceptable/unacceptable	7	8	10	8
	Neither	10	4	9	8
	Acceptable/Totally acceptable	70	73	70	72
	Don't know	7	9	4	7
	No response	5	5	7	5
Leaving clumps of trees for wildlife habitats	Totally unacceptable/unacceptable	4	7	5	5
	Neither	11	11	10	11
	Acceptable/Totally acceptable	72	69	74	71
	Don't know	8	9	4	8
	No response	4	4	7	5
Using selection and other partial harvest techniques	Totally unacceptable/unacceptable	4	6	3	5
	Neither	15	14	15	15
	Acceptable/Totally acceptable	56	57	62	58
	Don't know	19	16	11	16
	No response	6	7	8	7
Herbicides to control unwanted vegetation*	Totally unacceptable/unacceptable	39	37	29	36
	Neither	20	21	18	20
	Acceptable/Totally acceptable	23	21	33	24
	Don't know	13	14	12	13
	No response	5	6	7	6
Converting sites from mixedwood to softwood*	Totally unacceptable/unacceptable	35	33	26	32
	Neither	20	23	27	23
	Acceptable/Totally acceptable	19	23	28	23
	Don't know	20	15	12	16
	No response	6	6	8	7
Using clearcuts to harvest timber on private land*	Totally unacceptable/unacceptable	54	44	34	45
	Neither	16	19	18	18
	Acceptable/Totally acceptable	12	17	31	18
	Don't know	14	13	10	13
	No response	4	6	8	6

*Significantly different at $p < 0.05$ (Chi-square test)

5.0 FUTURE OF WOODLAND

Owners were asked to indicate any plans they might have for their woodlot for the next 10 years, instead of 5, as in Table 33. Most respondents, especially owners of smaller woodlots, have few to no plans for their woodlots (Table 49). One out of four respondents intend to pass the land on to their heirs, which is another important trend. Few owners seem interested in subdividing their woodlot, which is similar to the responses in Table 33.

In general, owners of larger woodlots are more interested in conducting more than one activity on their woodlots. As owners of large woodlots are more likely to own a farm, converting woodland to other uses might be considered as expanding their farming activities. However, converting other land uses to woodland is a rare response, even though many respondents (22%) want to plant trees (Table 33). The owners may have been referring to planting a few trees around their home, a hedgerow, or trees on harvested woodland.

Table 49. Respondents' plans for their woodlot in PEI in the next 10 years

	Percentage of respondents (according to woodlot size)			
Activity	**Small**	**Medium**	**Large**	**Total**
No plans/Don't know*	39	41	30	38
Leave as it is — no activity*	34	26	15	26
Minimum activity to maintain woodland	42	40	42	41
Collect non-timber products*	9	14	17	13
Harvest timber products*	4	18	37	17
Sell some or all my woodland*	2	6	10	6
Give woodland to children, heirs*	20	30	29	26
Divide woodland and sell subdivisions	2	1	2	2
Buy more land*	9	4	10	7
Convert woodland to another use*	5	6	20	9
Convert another land use to woodland	4	3	7	4
Other	5	8	7	7

*Significantly different at $p < 0.05$ (Chi-square test)

To simplify the presentation of results, this table presents only positive answers. The complete results used in calculating Chi-square tests are shown in Table A2-8 in Appendix 2.

6.0 ADDITIONAL COMMENTS

At the end of the survey, we provided a section for respondents to add handwritten comments. The comments that we collected were sorted into general categories to facilitate their presentation. Most respondents did not include any handwritten comments (Table 50). The most frequent comment gives details about the past, present, and future activities of the respondents on their woodland. Most owners who included this information likely did so to clarify or substantiate responses given to earlier questions in the survey. The next most frequent response is concern over harmful forest management practices, which coincides with the negative feelings toward the activities of logging contractors and harvest sustainability expressed by many landowners. The least frequent comments are from those concerned with financial issues (incentives for management and woodlot taxation).

Table 50. Additional comments written by respondents

Comment categories	Percentage of respondents
Details on woodlot/activities	6
Need balance of incentive, restrictions, rights	1
Concerned about harmful practices, management, etc.	4
Strengthen existing forestry regulations	0
Need replanting regulations (for clearcutting)	1
Complaints about the survey (length, wording, etc.)	1
Need more incentives, education, spending on forest mgmt.	0
Protect landowner rights	1
Information requests (not for survey results)	1
Request for survey results only	1
Concerned about taxation issues	0
Other	0
No response	84

7.0 CONCLUSIONS

Results from the survey show that woodlot owners own their land for many different reasons, and that they also have different beliefs and attitudes toward forest management. Often, motivations, attitudes, and beliefs are related to the size of woodlots owned. In this section, we discuss the key findings and highlight potential paths for future analysis and research.

There is a noticeable difference in response rates according to the size of woodlots owned; owners of larger woodlots have a higher rate of participation than owners of small woodlots. Those owning larger acreages are more likely to be involved in forest management activities, and more concerned with forestry issues. Participating in this study might have been appealing to them. Owners of small woodlots often felt that most (or all) of the survey did not apply to them, as they were not managing their woodlot and had no plans to (often because it was a small acreage). The sampling for this survey involved smaller properties than have previously been studied. This reflects, in part, the small average size of holdings on PEI. Even though the lowest rate of response was from owners of small woodlots, it is important to keep track of their behavior and attitudes even though they currently do not own much forest land. Other studies have pointed out that woodlots in the United States are getting smaller (Mehmood and Zhang 2001, DeCoster 1998). It would be interesting to determine whether this trend applies to PEI; if it does, then owners of small woodlots will be deciding what will happen on a larger part of the forest in the future.

Financial reasons are not a key factor in explaining why people own their woodlots, nor are they a major reason why owners decide to engage or not in timber harvesting activities. Most owners acquired their woodlots passively, either as an inheritance or in an incidental purchase when they bought other land (as part of a lot for a house, cottage, or farm). Many woodlot owners do not consider using the land's resources (timber and non-timber) other than for firewood. They simply intend to pass it on to their children as a part of their heritage, or as an area to preserve forest health. Owners of larger woodlots are more engaged in resource harvesting, and are more aware of the financial potential and burdens associated with woodlot ownership.

Woodlot owners did not respond negatively to any forest management practices or issues other than clearcutting and contractors, although owners of small woodlots had more negative opinions on these issues. Often the respondents perceive one as being synonymous with the other (as was made clear by comments written in the margin or included at the end of the survey). Respondents think that logging contractors should be restricted and regulated and that private landowners should be left alone to do as they see fit. However, they are unsure if private land on PEI is being managed sustainably or if private landowners are good stewards of the forest. General questions about the sustainability of PEI forests revealed that many woodlot owners are concerned about sustainability of timber supply. This does not appear to be either a new or a growing concern among woodlot owners. Two surveys conducted in the 1980s obtained similar results when they asked if people agreed that PEI would soon run out of wood. In the 1984 survey, 46% of owners agreed with this statement (IEA Consulting Group 1984); this dropped to 41% in 1988 (IEA Consulting Group 1988) and rose to 48% for a similar question in the present survey.

Respondents were not too negative in their responses to the use of herbicides and pesticides (compared with public perception about this issue). It is not surprising to see that support for herbicide and pesticide use is higher among owners of larger woodlots, who are more likely to own farms and who might view these practices differently as they are likely to use similar products in their farming activities. Regardless, the support for pesticide and herbicide use among woodlot owners has dropped from 55% in 1988 (IEA Consulting Group 1988) to around 25%.

For this report, the analysis of survey data looked only at the relation between answers provided from owners of various sizes of ownership. This has revealed interesting trends and allowed us to see that PEI owners are not a homogeneous group. It would be interesting to look at other factors that might characterize groups of owners. For example, response patterns could be analyzed based on respondents' sociodemographic profiles or ownership motivations. The motivations, attitudes, and behavior of absentee owners compared with those living on their woodlots could also be examined. The proportion of owners who are not living on their woodlots has increased over the last 14 years, and it is likely that this trend will continue; it would be interesting to further verify the impacts on activities in private woodlots.

The results of this survey provide a snapshot of PEI's woodlot owners in 2002. This work complements a timber supply analysis conducted by the province of Prince Edward Island. As acknowledged in the State of the Forest Report (PEI Department of Agriculture, Fisheries and Forestry, 1993), woodlot owner characteristics, behavior, and management intentions are critical to the issue of future timber supply. Given PEI's mainly private land base, any timber supply analysis should consider the social aspects of timber availability. It is also critical to update this information to monitor trends in ownership as well as in forest management activities and uses. The survey is also important for understanding PEI's woodlot owner commitments to progressive management and sustainability. As many owners have an overall passive approach to management, concern for environmental values, and an inclination to harvest lightly, forests in PEI do not appear to be under threat from overutilization.

8.0 REFERENCES

DeCoster, L.A. 1998. The boom in forest owners: A bust for forestry? *Journal of Forestry* 96: 25–28.

IEA Consulting Group Ltd. 1984. Report on a public survey of forestry related attitudes and awareness in Prince Edward Island. Canadian Forestry Service and Department of Energy and Forestry, Prince Edward Island. 42 p. + appendices.

IEA Consulting Group Ltd. 1988. Public awareness survey of forestry-related attitudes and awareness on Prince Edward Island: final report. Canadian Forestry Service and Department of Energy and Forestry, Prince Edward Island. 39 p. + appendices.

Lawal, H.B. and Upton, G.J.G. 1980. An approximation to the distribution of the X2 goodness-of-fit statistic use with small expectations. *Biometrics* 67(2):447–453.

Mehmood S.R., and Zhang D. 2001. Forest parcelization in the United States: a study of contributing factors. *Journal of Forestry* 99: 31–34.

Natural Resources Canada. 2003 The State of Canada's Forests 2002–2003: Looking ahead. Natural Resources Canada, Canadian Forest Service, 95p.

PEI Department of Agriculture, Fisheries and Forestry. 1993. Prince Edward Island State of the forest report 1980–1990. Forestry Division, PEI Department of Agriculture, Fisheries and Forestry. 42 p.

Roy, P. 1983. New Brunswick non-industrial woodlot owner survey: a background paper for the N.B. Private Woodlot Resources Study. New Brunswick Private Woodlot Resources Study. 150 p. + appendices.

USDA Forest Service. 2001. The national woodland owner survey questionnaire (Maine). Online: http://www.fs.fed.us/woodlandowners/quest.htm. Consulted March 13, 2003.

Salant, P., and Dillman D.A. 1994. How to conduct your own survey. John Wiley & Sons Inc. New York, NY, USA. 232 p.

Sanderson, L., Colborne, R., and Beesley, K. 2000. Woodland owner's perceptions and attitudes towards sustainable forest management: central Nova Scotia, 2000. Rural Research Centre, Nova Scotia Agricultural College, Nova Forest Alliance. 95 p.

Statistics Canada. 2003. Level of educational attainment for the age group 25 to 64, percentage distribution for both sexes, for Canada, Provinces and Territories. Statistics Canada. Online: http://www12.statcan.ca/francais/census01/products/highlight/Education/Page.cfm?Lang=E&Geo=PR&View=1b&Table=1a&StartRec=1&Sort=2&B1=Counts1&B2=Total.

Statistics Canada. 2003. Census of Agriculture: Land tenure by province. Statistics Canada. Online: http://www.statcan.ca/english/Pgdb/econ113c.htm.

Wellstead, A., and Brown P. 1993. The 1993 Nova Scotia woodlot owner survey. Nova Scotia Department of Natural Resources, Halifax, NS.

APPENDIX 1

SURVEY QUESTIONNAIRE

QUESTIONNAIRE

Please take the time to fill out this survey and return it so your opinion will be heard. Remember that there are no right or wrong answers, choose the answers that best fit your situation or opinion. All information provided for this study will be kept completely confidential.

Instructions

✓ Please provide answers for all the woodland that you own in Prince Edward Island.
✓ The owner who makes most of the decisions about your woodland should answer this questionnaire.

General questions about your woodland

Woodland is a piece of land that is at least 1.25 acres in size; where trees grow, or where trees were removed and trees will grow again.

1. How many individual tracts or parcels of woodland do you own on Prince-Edward Island?
(Check (✓) only ONE)

( ) 1 parcel
( ) 2 parcels
( ) 3–5 parcels
( ) 6–10 parcels
( ) more than 10 parcels
( ) 0 parcels

If you don't own any woodland in Prince-Edward Island,
please return this questionnaire in the
postage-paid envelope provided.
Thank you!

2. In what year did you first obtain or acquire woodland in Prince Edward Island? _____

3. Of your total acreage of woodland, how many acres did you obtain or acquire by:
( ) Buying it: _____acres
( ) Inheriting it: _____acres
( ) Getting it as a gift: _____acres
( ) Other (please specify how and acreage) _____

4. From whom did you get your woodland?
(Check (✓) ALL that apply)

( ) Family
( ) Other individual
( ) Land developer
( ) Investment group
( ) Independent logging contractor
( ) Other (please specify):_____

5. How many times have you sold or given away woodland in Prince Edward Island?
(Check (☐) only ONE)

( ) Never. If never, go to question 7.
( ) 1 time
( ) 2–5 times
( ) 6 times or more

6. If you have sold or given away woodland in Prince Edward Island, who got it?
(Check (✓) ALL that apply)

( ) Family
( ) Other individual
( ) Land developer
( ) Investment group
( ) Independent logging contractor
( ) Other (please specify):_____

7. How would you describe the type of ownership in which the major portion of your woodland is held?
(Check (✓) only ONE)

( ) Individual ownership
( ) Joint (including husband and wife owners)
( ) Formal partnership agreement
( ) Informal partnership agreement
( ) Non-forestry corporation
( ) Non-profit organization
( ) Other (please specify):_____

8. Where do you live in relation to your closest wooded property?
(Check (✓) only ONE)

( ) On my wooded property
( ) Within 10 km of it
( ) 11–25 km from it
( ) 26–50 km from it
( ) 51–100 km from it, but in PEI
( ) more than 100 km from it, but in PEI
( ) outside PEI

9. Do you own a farm that is within one (1) km of any woodland you own in Prince Edward Island?

( ) Yes
( ) No

YOUR REASONS FOR OWNING WOODLAND

10. What is the one main reason that you own woodland in Prince Edward Island?

11. People own woodland for many reasons. How important are the following reasons for why you own woodland in Prince Edward Island?

(Circle ONE number for EACH item)	Very important	Important	Slightly important	Not important
To pass on as a heritage	4	3	2	1
For maple syrup production	4	3	2	1
Because I've inherited it	4	3	2	1
To preserve forest ecosystems	4	3	2	1
For the sake of future generations	4	3	2	1
For Christmas tree production	4	3	2	1
As a retirement fund	4	3	2	1
As an investment	4	3	2	1
As a location for my cottage or camp	4	3	2	1
As a location for my permanent residence	4	3	2	1
For wildlife enjoyment	4	3	2	1
For enjoyment from owning "green space"	4	3	2	1
To make a living	4	3	2	1
To supplement my yearly income	4	3	2	1
To harvest firewood	4	3	2	1
Because forest land is part of a farm	4	3	2	1
For hunting and fishing	4	3	2	1
For recreation	4	3	2	1
For timber harvesting	4	3	2	1
To protect water quality	4	3	2	1
To harvest non-timber forest products such as mushrooms, berries	4	3	2	1
For other reasons (please specify): _____	4	3	2	1

USE OF YOUR WOODLAND

12. Please check the statement that most closely matches your current situation
(Check (✓) only ONE)

( ) I am using a formal (written) management plan for some or all of my woodland
( ) I have a formal (written) management plan that I do not use
( ) I am currently developing a formal (written) management plan for some or all of my woodland
( ) I don't have a formal (written) management plan but I'm interested in having one
( ) I don't have a formal (written) management plan and I'm not interested in having one

13. When you make decisions about forest management on your woodland, what impact does the possible effect on wildlife and their habitat have on your decision?
(Check (✓) only ONE)

( ) They have a great impact
( ) They have some impact
( ) They don't have any impact

14. How important is finding a trustworthy harvesting crew in making a decision about harvesting or removing trees from your woodland.
(Check (✓) only ONE)

( ) So important that if I don't find one I won't be harvesting
( ) Important
( ) Slightly important
( ) Not important at all

15. How often did you, or someone you asked, harvest or remove trees from your woodland?
(Check (✓) only ONE)

( ) at least once a year
( ) not in the last year but once over the last 5 years
( ) not in the last 5 years, but at least once over the last 10 years
( ) not in the last 10 years, but at least once before then; please go to question 21
( ) Never; please go to question 21

16. How important were these reasons in your decision to harvest:

(Circle ONE number for EACH item)	**Very important**	**Important**	**Slightly important**	**Not important**
To achieve objectives in management plan	4	3	2	1
Trees were mature	4	3	2	1
To clear land for conversion to another use	4	3	2	1
Had the time to do it	4	3	2	1
Needed money	4	3	2	1
Needed the wood for own use	4	3	2	1
Price was right	4	3	2	1
To avoid possible harvest restrictions in the future	4	3	2	1
To improve hunting opportunities	4	3	2	1
To improve scenic and recreational opportunities	4	3	2	1
To remove trees damaged by natural catastrophe (i.e., insects, fire, ice, or wind)	4	3	2	1
To improve quality of remaining trees	4	3	2	1
A forest company or a contractor contacted me to do the harvesting	4	3	2	1
Other (please specify): _____	4	3	2	1

17. What was harvested or removed? Please specify if the harvest was for your own use or for sae. (Check (✓) ALL that apply)

	Harvested for	
	Your own use	**Sale**
Firewood	( )	( )
Post, poles or pilings	( )	( )
Hardwood sawlogs (lumber logs)	( )	( )
Softwood sawlogs (lumber logs)	( )	( )
Pulpwood	( )	( )
Hardwood veneer logs	( )	( )
Softwood veneer logs	( )	( )
Christmas trees	( )	( )
Other (please specify) _____	( )	( )

18. Which method(s) of timber harvesting were used to harvest your trees, and how often?

(Circle ONE number for EACH item)	**Always**	**Often**	**Sometimes**	**Never**	**Don't know**
Cutting all the trees (clearcut)	4	3	2	1	DK
Cutting only pre-selected trees	4	3	2	1	DK
Cutting a couple of trees here and there	4	3	2	1	DK
Salvaging fallen and dying trees	4	3	2	1	DK
Other (please specify):_____	4	3	2	1	DK

19. Who did most of the harvesting on your woodland?
(Check (✓) only ONE)

( ) Just myself
( ) Myself and/or members of my family
( ) My friends and neighbors
( ) A crew that I hired
( ) An independent contractor
( ) Other (please specify):_____

20. Have you had an experience with logging contractors on your land?

( ) Yes
( ) No, please go to question 22

If yes, have you been satisfied with their services?

( ) Yes I was entirely satisfied.
( ) I was not entirely satisfied, but it is possible that I will seek their services again or recommend them to a friend.
( ) No I was not satisfied and I would not hire their services again or recommend them to a friend.

Please go to question 22

21. If you have not harvested wood from your woodland during the last 10 years, is it because your intention is to never harvest?

( ) Yes, go to question 22
( ) No

How important were the following reasons in choosing not to harvest trees?

(Circle ONE number for EACH item)	Very important	Important	Slightly important	Not important
I was too busy with other activities	4	3	2	1
I didn't had any financial need to do so	4	3	2	1
I did not know what or how to sell	4	3	2	1
The prices were too low	4	3	2	1
I could not find a market	4	3	2	1
The trees were not large enough to sell	4	3	2	1
Tree cutting operation could damage the remaining trees	4	3	2	1
There were accessibility or road problems	4	3	2	1
Extra income could increase the income tax I have to pay	4	3	2	1
Extra income could decrease or make me lose my old age pension supplement	4	3	2	1
I was unable due to age	4	3	2	1
I was unable due to absence from the area	4	3	2	1
I have just bought or inherited the land	4	3	2	1
Other (please specify):_____	4	3	2	1

22. Have you, or your family, collected these forest products from your Prince Edward Island woodland in the last 5 years?

Please indicate for each of the following if they were not collected or if they were collected for either one or more of these reasons:

		Collected for		
	Not collected	Personal use	For gift	For sale
Game birds	( )	( )	( )	n/a
Fur animals	( )	( )	( )	( )
Mushrooms	( )	( )	( )	( )
Maple sap	( )	( )	( )	( )
Berries	( )	( )	( )	( )
Fiddleheads	( )	( )	( )	( )
Boughs/brush	( )	( )	( )	( )
Fish	( )	( )	( )	n/a
Handcraft material	( )	( )	( )	( )
Peat moss, black earth or soil	( )	( )	( )	( )
Other (please specify):_____	( )	( )	( )	( )

23. We would like you to indicate if:

a) you have done any of the following activities on any of your woodland in the last 5 years
b) you are planning to undertake any of the following activities in the next 5 years

(Check (✓) ALL that apply)	**Occurred in the past 5 years**	**Plan in the next 5 years**
Preparation/update of a management plan	( )	( )
Plant trees	( )	( )
Apply pesticides or herbicides	( )	( )
Thinning or spacing young stands	( )	( )
Selection cutting	( )	( )
Removing low quality trees, blowdown, brush etc.	( )	( )
Develop Christmas trees stands	( )	( )
Surveying, upgrading boundary lines	( )	( )
Build or maintain roads and trails	( )	( )
Wildlife habitat/fisheries improvement projects	( )	( )
Improvements for recreation	( )	( )
Subdividing any land parcel	( )	( )
Other (please specify):_____	( )	( )

SOURCES OF INFORMATION

24. Have you ever received advice or information about the woodland that you own in Prince Edward Island?

( ) Yes
( ) No

If yes, who did you get information or advice from? (Check (✓) ALL that apply)

( ) Prince Edward Island Forest Service technician
( ) Watershed management groups
( ) Private consultant such as forester or wildlife biologist
( ) Forest product company forester or technician
( ) Logging contractor
( ) Employee of a non-profit environmental group (e.g., Ducks Unlimited)
( ) Woodlot owner association
( ) Other forest landowner, neighbor, friend
( ) I don't remember whom
( ) Other (please specify)_____

25. How useful would the following ways of learning about managing your woodlands be for you?

(Circle ONE number for EACH item)	Very useful		Neither		Not useful	Don't know
Books	5	4	3	2	1	DK
Pamphlets or newsletters	5	4	3	2	1	DK
Magazines or newspapers	5	4	3	2	1	DK
Conferences, workshop, video conferences	5	4	3	2	1	DK
Home study course	5	4	3	2	1	DK
Video tapes for home viewing	5	4	3	2	1	DK
Television or radio programs	5	4	3	2	1	DK
Visiting other woodlands, field trips	5	4	3	2	1	DK
Talking with a forester or other natural resources professional	5	4	3	2	1	DK
Talking with a logging contractor	5	4	3	2	1	DK
Membership in landowner organization	5	4	3	2	1	DK
Websites	5	4	3	2	1	DK
Other (please specify):_____	5	4	3	2	1	DK

26. Have you ever attended any meetings or did you ever receive any newsletter or information from a woodland owners' organization in your area?

( ) Yes
( ) No

27. Have you used the technical services available from a woodland owners' organization or have you attended any seminars or short courses that might be offered by these organizations?

( ) Yes
( ) No

28. Would you be interested in being a member of a woodland owners' association that could provide you with information about forest management, forest products market, etc.?
(Check (✓) only ONE)

( ) Yes, I am already a member
( ) Yes, I would consider it
( ) No

WOODLOT MANAGEMENT PROGRAMS

29. Are you aware of any woodlot management programs available to assist woodlot owners in Prince Edward Island?

( ) Yes
( ) No

30. Would you be interested in entering into a long-term agreement of about 10 to 20 years with an agency that would assist you in the management of your forest?
(Check (✓) only ONE)

( ) Yes
( ) Maybe
( ) No

31. How satisfied are you with the efforts of the government to support and encourage better woodlot management? (Check (✓) only ONE)

( ) Totally satisfied
( ) Satisfied
( ) Dissatisfied
( ) Totally dissatisfied

Concerns and issues

32. Do you think forest management in Prince Edward Island results in sustainable forests:
(Check (✓) one for EACH item)

	Yes	No	Don't know
On woodlands owned by contractors	( )	( )	( )
On woodlands owned by individuals	( )	( )	( )

33. People have different opinions about forest management in Prince Edward Island. Please indicate your level of agreement or disagreement with EACH of the following statements.

	Strongly agree		Neither		Strongly disagree	Don't know
Properly applied, insecticides are an acceptable management tool.	5	4	3	2	1	DK
Environmentalists go too far in trying to restrict logging.	5	4	3	2	1	DK
Greater efforts should be made to protect old-growth forests.	5	4	3	2	1	DK
I believe that woodland that is not actively managed is wasted.	5	4	3	2	1	DK
I would be willing to accept timber cutting restrictions on my own land.	5	4	3	2	1	DK
Legislation should be enacted requiring forest landowners to adhere to best forest management practices on their own land.	5	4	3	2	1	DK
Most woodland owners in Prince Edward Island don't know how to look after their forests.	5	4	3	2	1	DK
Prince Edward Island will have very little harvestable wood in 10–20 years.	5	4	3	2	1	DK

34. Which of the following statements come closest to describing your attitude toward clearcutting. (Check (✓) only ONE)

( ) I am unfamiliar with clearcutting and do not have an opinion on it at this time
( ) There should be no restrictions placed upon clearcutting
( ) Clearcutting should be allowed only where suitable for the area and the tree species
( ) Clearcutting should not be allowed anywhere

35. Indicate your level of concern regarding the following problems facing woodland owners today.

(Circle ONE number for EACH item)	Greatly concerned		Neutral		Not concerned
The lack of knowledge of cutting methods	5	4	3	2	1
Public perceptions of timber harvesting	5	4	3	2	1
Taxation of woodland income	5	4	3	2	1
The lack of strong landowner organizations	5	4	3	2	1
The low level of funding for forest management	5	4	3	2	1
The lack of financial incentives for preservation	5	4	3	2	1
The high cost of silviculture	5	4	3	2	1
Too much wood being cut	5	4	3	2	1

36. The following statements reflect some different perspectives on forest issues.

Please indicate your level of agreement or disagreement with EACH of the following statements.

	Strongly agree		Neither		Strongly disagree	Don't know
The provincial government should not regulate private woodlot cutting.	5	4	3	2	1	DK
Properly applied, herbicides are an appropriate tool.	5	4	3	2	1	DK
There is sufficient wood in Prince Edward Island for all users, including paper mills, sawmills, and domestic firewood cutters.	5	4	3	2	1	DK
Timber harvesting contractors should be strictly regulated.	5	4	3	2	1	DK
Where forests are privately owned, society should not have any control over what the owner does with them.	5	4	3	2	1	DK
Woodlot owners in Prince Edward Island are good stewards of the forest.	5	4	3	2	1	DK
Ownership of the forest doesn't give people the right to do whatever they want with it.	5	4	3	2	1	DK
The government should provide incentives for private landowners to establish protected areas on their land.	5	4	3	2	1	DK

37. Please indicate how acceptable you feel the following forest management practices are for Prince Edward Island.

(Circle ONE number for EACH item)	Totally acceptable		Neither		Totally unacceptable	Don't know
Using clearcuts to harvest timber on private land.	5	4	3	2	1	DK
Using herbicides to control growth of unwanted vegetation to improve survival of planted trees.	5	4	3	2	1	DK
Leaving clumps of trees for wildlife habitats.	5	4	3	2	1	DK
Closing forest access roads to control illegal dumping of garbage.	5	4	3	2	1	DK
Converting sites from mixedwood to softwood to increase timber production.	5	4	3	2	1	DK
Using selection and other partial harvest techniques.	5	4	3	2	1	DK
Cutting selectively to maintain wildlife habitat.	5	4	3	2	1	DK

THE FUTURE OF YOUR WOODLAND

38. What are your plans for your woodland in Prince Edward Island in the next 10 years. (Check (✓) ALL that apply)

( ) no plans/ don't know
( ) leave it as it is; no activity
( ) minimum activity to maintain woodland
( ) collect non-timber products
( ) harvest timber products
( ) sell some or all my woodland
( ) give some or all my woodland to children, heirs
( ) divide all or part of my woodland and sell the subdivisions
( ) buy more land
( ) convert some or all my woodland to another use
( ) convert another land use to woodland
( ) other (please specify):_____

BACKGROUND INFORMATION

39. What is your gender?
( ) Male
( ) Female

40. What is your age?
( ) Under 25 years
( ) 25–34 years
( ) 35–44 years
( ) 45–54 years
( ) 55–64 years
( ) 65–74 years
( ) 75 years or more

41. Are you:

( ) Full-time, year-round worker
( ) Full-time, seasonal worker
( ) Part-time, year-round worker
( ) Part-time, seasonal worker
( ) Retired
( ) Other (please specify):_____

42. What is the highest level of schooling that you have completed.

( ) Less than Grade12
( ) High school
( ) Some college
( ) Associate or technical degree
( ) Bachelor's degree
( ) Graduate degree

43. What is your household's annual income before taxes?

( ) Less than $20 000
( ) $20 000–39 999
( ) $40 000–59 999
( ) $60 000–99 999
( ) $100 000 or more

Do you have any additional comments or concerns about your woodland that you would like to share?

If you would like to be informed when the results of this survey are released, please contact:

Dr. Tom Beckley,
Faculty of Forestry and Environmental Management,
University of New Brunswick, P.O. Box 44555
Fredericton, NB, Canada E3B 6C2
Phone: (506) 453-4917

Thank you for participating in this survey
Please return the questionnaire in the enclosed, postage-paid envelope.

APPENDIX 2

Expanded tables

Table A2-1. Complete data on proportion of owners who acquired forest through various means

Method obtained	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Bought*	Yes	66	61	72	65
	No	32	36	25	32
	No response	2	3	3	3
Inherited*	Yes	24	35	39	32
	No	74	62	58	65
	No response	2	3	3	3
Gift	Yes	9	8	7	8
	No	89	89	90	89
	No response	2	3	3	3
Other	Yes	1	1	1	1
	No	96	96	96	96
	No response	2	3	3	3

*Significantly different at $p < 0.05$ (Chi-square test)

Table A2-2. Complete data on the sources from which respondents had obtained their woodland

Former owner of woodland	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
Family*	Yes	45	58	62	54
	No	54	42	38	45
	No answer	1	0	0	1
Other individual	Yes	44	41	54	45
	No	55	59	45	54
	No answer	1	0	0	1
Land developer	Yes	1	2	1	1
	No	98	98	98	98
	No answer	1	0	0	1
Investment group	Yes	1	0	1	1
	No	99	100	99	99
	No answer	1	0	0	1
Logging contractor	Yes	0	0	0	0
	No	99	99	99	99
	No answer	1	0	0	1
Other	Yes	8	7	7	7
	No	91	93	92	92
	No answer	1	1	0	1

*Significantly different at $p < 0.05$ (Chi-square test)

Table A2-3. Complete data on the individual or group that received respondents' sold or given woodland (n = 147)

Recipient of land sold or given	Percentage of respondents (according to woodlot size)			
	Small	Medium	Large	Total
Family	37	24	33	30
	63	68	65	66
	0	8	2	4
Other individual	42	44	43	43
	58	48	55	53
	0	8	2	4
Land developer	0	0	2	1
	100	92	96	95
	0	8	2	4
Investment group	0	0	2	1
	100	92	96	95
	0	8	2	4
Logging contractor	24	28	27	25
	76	64	71	69
	0	8	2	4
Other	0	5	10	5
	100	87	88	91
	0	8	2	4

Table A2-4. Complete data on products and use of trees harvested or removed by those who have harvested in the last 10 years. (n = 676, sorted by size category of ownership)

		Percentage of respondents(according to woodlot size)			
Product	**Harvested**	**Small**	**Medium**	**Large**	**Total**
Firewood for own use*	Yes	57	74	67	68
	No	30	23	32	27
	No response	13	3	1	5
Firewood for sale*	Yes	6	11	25	14
	No	81	86	73	81
	No response	13	3	2	5
Posts, pilings for own use*	Yes	9	13	17	13
	No	78	84	82	82
	No response	13	3	1	5
Posts, pilings for sale*	Yes	2	3	8	4
	No	85	94	90	91
	No response	13	3	2	5
Hardwood sawlogs for own use*	Yes	6	19	9	13
	No	80	78	90	82
	No response	14	3	1	5
Hardwood sawlogs for sale*	Yes	4	7	22	11
	No	82	90	76	84
	No response	14	3	2	5
Softwood sawlogs for own use*	Yes	19	37	33	32
	No	68	60	65	63
	No response	13	3	2	5
Softwood sawlogs for sale*	Yes	18	28	54	34
	No	69	69	44	61
	No response	13	3	2	5
Pulpwood for own use*	Yes		3	4	3
	No	87	94	95	92
	No response	13	3	1	5
Pulpwood for sale*	Yes	14	24	51	30
	No	72	73	48	65
	No response	14	3	1	5
Hardwood veneer for own use*	Yes	2	1	2	1
	No	85	96	97	94
	No response	13	3	1	5
Hardwood veneer for sale*	Yes	2	4	11	5
	No	85	93	88	90
	No response	13	3	1	5

Table A2-4 *(continued)*

Product	Harvested	Percentage of respondents(according to woodlot size)			
		Small	Medium	Large	Total
Softwood veneer for own use*	Yes		2	1	1
	No	87	95	97	94
	No response	13	3	2	5
Softwood veneer for sale*	Yes	2	4	16	7
	No	85	93	82	88
	No response	13	3	2	5
Christmas trees for own use*	Yes	6	6	5	5
	No	81	91	94	90
	No response	13	3	1	5
Christmas trees for sale*	Yes		1	2	1
	No	87	96	97	94
	No response	13	3	1	5
Other product for own use*	Yes	6	2	3	3
	No	80	95	96	92
	No response	14	3	1	5
Other product for sale*	Yes		2	2	1
	No	87	95	97	94
	No response	13	3	1	5

*Significantly different at $p<0.05$ (Chi-square test)

Table A2-5. Complete data on forest products collected by respondents and their families in the past 5 years (sorted by size category of ownership)

			Percentage of respondents (according to woodlot size)			
Item	**Use**	**Response**	**Small**	**Medium**	**Large**	**Total**
Game birds	Not collected	Yes	90	89	87	89
		No	4	7	8	6
		No response	6	4	5	5
	Personal use	Yes	4	7	8	6
		No	90	89	87	89
		No response	6	4	5	5
	Gift	Yes	0.5	0.5	0.5	0.5
		No	94	95	95	95
		No response	6	5	5	5
	Sale	n.a.	n.a.	n.a.	n.a.	n.a.
Fur animals	Not collected	Yes	91	93	93	92
		No	3	3	2	3
		No response	6	4	5	5
	Personal use	Yes	2	2	2	2
		No	92	94	93	93
		No response	6	4	5	5
	Gift	Yes		0.2		0.1
		No	94	95	95	95
		No response	6	4	5	5
	Sale	Yes	0.5	0.2	0.4	0.4
		No	94	95	95	95
		No response	6	4	5	5
Mushrooms	Not collected	Yes	88	91	88	89
		No	6	5	7	6
		No response	6	4	50	5
	Personal use	Yes	5	5	7	6
		No	89	91	88	89
		No response	6	4	5	5
	Gift	Yes	0.5	0.2	0.4	0.4
		No	94	95	95	95
		No response	6	4	5	5
	Sale	Yes	0	0.2	0.4	0.2
		No	94	95	95	95
		No response	6	4	5	5
Maple sap	Not collected	Yes	93	92	90	92
		No	1	4	5	3
		No response	6	4	5	5
	Personal use	Yes	1	3	5	3
		No	93	93	90	92
		No response	6	4	5	5
	Gift	Yes	0	0.2	1	0.3

Table A2-5. (*continued*).

Item	Use	Response	Percentage of respondents (according to woodlot size)			
			Small	Medium	Large	Total
		No	94	95	94	95
		No response	6	4.4	4	5
	Sale	Yes	0	1	1	1
		No	94	95	94	94
		No response	6	4	5	5
Berries	Not collected	Yes	71	74	67	71
		No	23	22	28	24
		No response	6	4	5	5
	Personal use	Yes	23	21	26	23
		No	71	74	69	72
		No response	6	5	5	5
	Gift	Yes	0	0.2	1	0.4
		No	94	95	94	94
		No response	6	4	5	5
	Sale*	Yes	0	0.4	3	1
		No	94	95	92	94
		No response	6	4	5	5
Fiddleheads	Not collected	Yes	88	92	89	90
		No	6	4	6	5
		No response	6	4	5	5
	Personal use	Yes	6	4	6	5
		No	88	92	89	90
		No response	6	4	5	5
	Gift	Yes	0	0	0	0
		No	94	96	95	95
		No response	6	4	5	5
	Sale	Yes	0	0	0	0
		No	94	96	95	95
		No response	6	4	5	5
Boughs / brush	Not collected	Yes	75	77	77	76
		No	19	18	18	19
		No response	6	5	5	5
	Personal use	Yes	19	17	17	18
		No	75	78	78	77
		No response	6	5	5	5
	Gift	Yes	0.5	0.7	0.8	0.6
		No	94	95	94	9
		No response	6	4	5	5
	Sale	Yes	0	0.4	0.8	0.4
		No	94	95	94	94
		No response	6	4	5	5

Table A2-5 (*continued*).

Item	Use	Response	Percentage of respondents (according to woodlot size)			
			Small	Medium	Large	Total
Fish	Not collected	Yes	90	89	87	89
		No	4	6	8	6
		No response	6	5	5	5
	Personal use	Yes	4	6	8	6
		No	90	89	87	89
		No response	6	5	5	5
	Gift	Yes			0.4	0.1
		No	94	96	94	95
		No response	6	4	5	5
	Sale	n.a.	n.a.	n.a.	n.a.	n.a.
Handcraft material	Not collected	Yes	85	85	84	85
		No	9	10	11	10
		No response	6	5	5	5
	Personal use	Yes	9	10	11	10
		No	85	86	84	85
		No response	6	4	5	5
	Gift	Yes		0.4	1	0.4
		No	94	95	94	94
		No response	6	4	5	5.1
	Sale	Yes	1		0.4	0.3
		No	94	96	94	95
		No response	5	4	5	5
Peat moss, soil	Not collected	Yes	89	91	87	89
		No	6	5	8	6
		No response	5	4	5	5
	Personal use	Yes	6	5	7	6
		No	89	91	88	89
		No response	5	4	5	5
	Gift	Yes	0	0	0	0
		No	94	96	95	95
		No response	6	4	5	5
	Sale	Yes			0.4	0.1
		No	94	96	94	95
		No response	6	4	5	5
Other	Not collected	Yes	92	94	92	93
		No	2	2	3	2
		No response	6	4	5	5
	Personal use	Yes	2	2	2	2
		No	92	94	93	93
		No response	6	4	5	5

Table A2-5 (*continued*).

Item	Use	Response	Percentage of respondents (according to woodlot size)			
			Small	Medium	Large	Total
	Gift	Yes	0	0	1	0.2
		No	94	96	94	95
		No response	6	4	4	5
	Sale	Yes	0	0.2	0.8	0.3
		No	94	95	94	95
		No response	6	4	5	5

n.a.: Not applicable

*Significantly different at $p < 0.05$ (Chi-square test)

Table A2-6. Complete data on past and proposed activities on woodland

Activity	When	Response	Percentage of respondents (according to woodlot size)			
			Small	Medium	Large	Total
Management plan*	Done in last 5 years	Yes	3	8	16	8
		No	70	72	70	71
		No response	26	21	14	21
	Planned for next 5 years	Yes	20	15	27	19
		No	54	64	59	59
		No response	26	21	14	21
Plant trees*	Done in last 5 years	Yes	20	18	27	21
		No	54	62	59	58
		No response	26	21	14	21
	Planned for next 5 years	Yes	24	18	28	22
		No	50	62	58	57
		No response	26	21	14	21
Apply biocides*	Done in last 5 years	Yes	3	4	12	5
		No	71	75	74	73
		No response	26	21	14	21
	Planned for next 5 years	Yes	2	5	7	4
		No	71	75	79	74
		No response	26	21	14	21
Thinning / spacing*	Done in last 5 years	Yes	17	14	19	17
		No	57	65	67	62
		No response	26	21	14	21
	Planned for next 5 years	Yes	23	18	24	21
		No	51	61	62	58
		No response	26	21	14	21
Selection cutting*	Done in last 5 years	Yes	18	27	33	25
		No	56	53	52	54
		No response	26	21	14	21
	Planned for next 5 years	Yes	21	22	32	24
		No	53	58	54	55
		No response	26	21	14	21
Removing low quality trees*	Done in last 5 years	Yes	34	42	37	38
		No	39	37	49	41
		No response	26	21	14	21
	Planned for next 5 years	Yes	35	28	33	32
		No	39	51	53	47
		No response	26	21	14	21

Table A2-6. (*continued*).

Activity	When	Response	Percentage of respondents (according to woodlot size)			
			Small	Medium	Large	Total
Development of Christmas tree stands*	Done in last 5 years	Yes	1	2	2	2
		No	73	77	84	77
		No response	26	21	14	21
	Planned for next 5 years	Yes	3	3	4	3
		No	71	76	82	76
		No response	26	21	14	21
Boundary lines*	Done in last 5 years	Yes	14	16	21	16
		No	60	64	65	63
		No response	26	21	14	21
	Planned for next 5 years	Yes	15	14	22	16
		No	59	66	63	63
		No response	26	21	14	21
Roads and trails*	Done in last 5 years	Yes	10	19	24	17
		No	64	60	62	62
		No response	26	21	14	21
	Planned for next 5 years	Yes	15	14	23	16
		No	59	65	63	62
		No response	26	21	14	21
Wildlife projects*	Done in last 5 years	Yes	3	5	7	5
		No	71	75	79	74
		No response	26	21	14	21
	Planned for next 5 years	Yes	8	6	13	8
		No	66	73	73	70
		No response	26	21	14	21
Recreation projects*	Done in last 5 years	Yes	10	6	7	8
		No	64	73	79	71
		No response	26	21	14	21
	Planned for next 5 years	Yes	14	8	13	11
		No	60	72	73	68
		No response	26	21	14	21
Subdivide parcel*	Done in last 5 years	Yes	1	5	5	4
		No	73	75	81	75
		No response	26	21	14	21
	Planned for next 5 years	Yes	6	5	7	6
		No	68	74	79	73
		No response	26	21	14	21
Other*	Done in last 5 years	Yes	2	2	1	1
		No	72	78	84	77
		No response	26	21	14	21
	Planned for next 5 years	Yes	4	4	5	4
		No	70	75	81	74
		No response	26	21	14	21

*Significantly different at $p < 0.05$ (Chi-square test)

Table A2-7. Complete data on source from which owners have received advice

Received advice from	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
PEI Forest Service technician*	Yes	47	71	79	68
	No	53	29	21	32
	No response	0	1	0	0
Watershed management groups	Yes	3	9	10	8
	No	97	90	90	91
	No response	0	1	0	0
Private consultant	Yes	15	9	9	10
	No	85	91	91	89
	No response	0	1	0	0
Company forester or technician	Yes	9	6	14	10
	No	91	93	86	90
	No response	0	1	0	0
Logging contractor	Yes	16	29	29	26
	No	84	70	71	74
	No response	0	1	0	1
Employee of non-profit group	Yes	9	4	9	7
	No	91	95	91	93
	No response	0	1	0	0
Woodlot owner association*	Yes		9	4	5
	No	100	91	96	95
	No response	0	1	0	0
Other landowner, neighbor	Yes	34	22	21	24
	No	66	78	79	75
	No response	0	1	0	0
I don't remember	Yes	6	2	1	3
	No	94	97	99	97
	No response	0	1	0	0
Other	Yes	6	8	4	6
	No	94	91	96	94
	No response	0	1	0	0

*Significantly different at $p < 0.05$ (Chi-square test)

Table A2-8. Complete data on respondents' plans for their woodland in PEI in the next 10 years (sorted by size category of ownership)

Activity	Response	Percentage of respondents (according to woodlot size)			
		Small	Medium	Large	Total
No plans / don't know*	Yes	39	41	30	38
	No	60	58	67	61
	No response	2	1	3	2
Leave as it is; no activity*	Yes	34	26	15	26
	No	64	74	82	72
	No response	2	1	3	2
Minimum activity to maintain woodland	Yes	42	40	42	41
	No	57	58	55	57
	No response	2	1	3	2
Collect non-timber products*	Yes	9	14	17	13
	No	89	85	80	85
	No response	2	1	3	2
Harvest timber products*	Yes	4	18	37	17
	No	94	81	60	81
	No response	2	1	3	2
Sell some or all my woodland*	Yes	2	6	10	6
	No	96	92	87	93
	No response	2	1	3	2
Give woodland to children, heirs*	Yes	20	30	29	26
	No	78	69	68	72
	No response	2	1	3	2
Divide woodland and sell subdivisions	Yes	2	1	2	2
	No	97	97	95	97
	No response	2	1	3	2
Buy more land*	Yes	9	4	10	7
	No	90	95	87	91
	No response	2	1	3	2
Convert woodland to another use*	Yes	5	6	20	9
	No	93	92	77	89
	No response	2	1	3	2
Convert another land use to woodland	Yes	4	3	7	4
	No	94	96	90	94
	No response	2	1	3	2
Other	Yes	5	8	7	7
	No	93	91	90	91
	No response	2	1	3	2

*Significantly different at $p < 0.05$ (Chi-square test)

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